A COAL PRODUCER GETS ITS OWN UNIT-TRAIN CAR FLEET p. 32

FEBRUARY 21, 1966

RAILWAY AGE

WEEKLY

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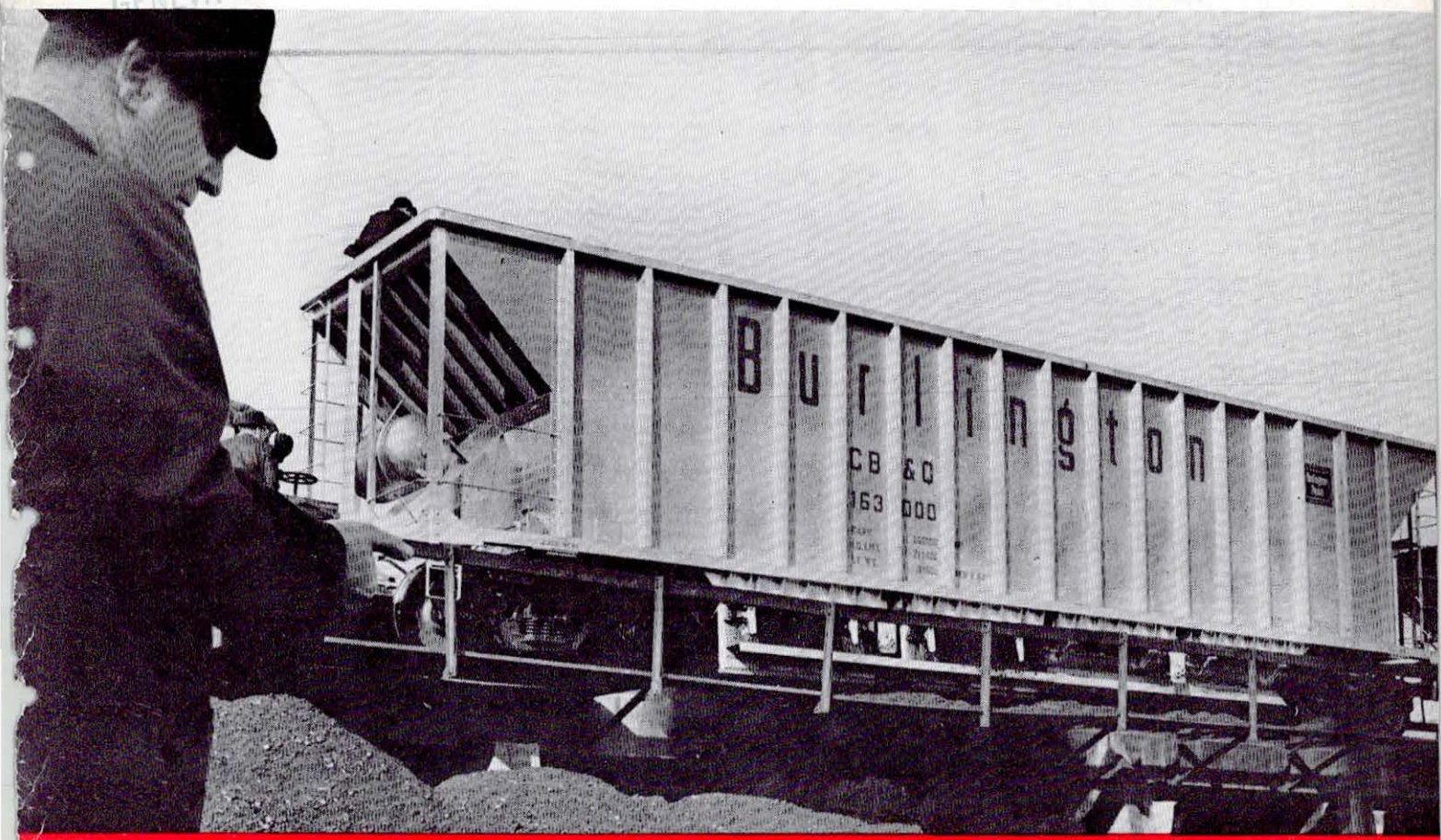

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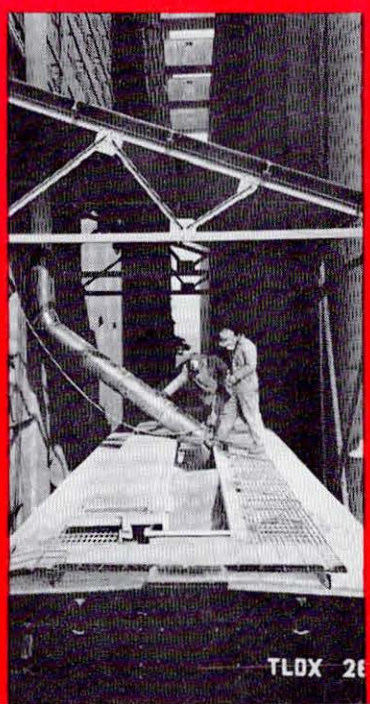
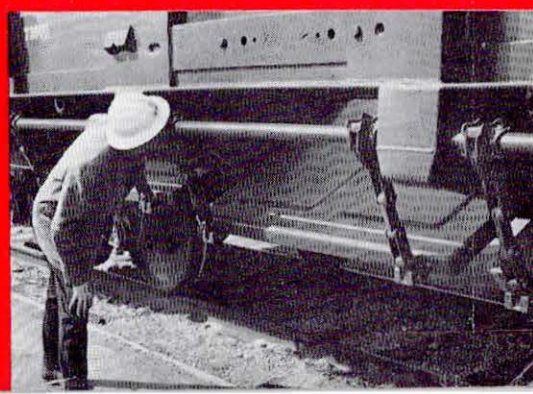


Formula for the bulk-handling boom: Load, Go, Unload–FAST

p. 19



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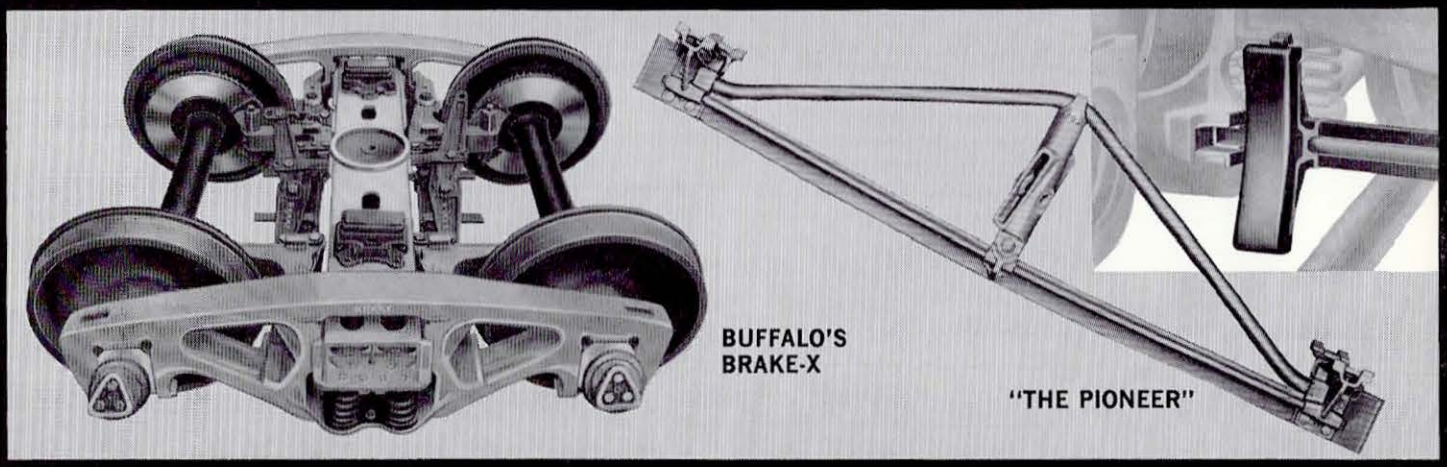

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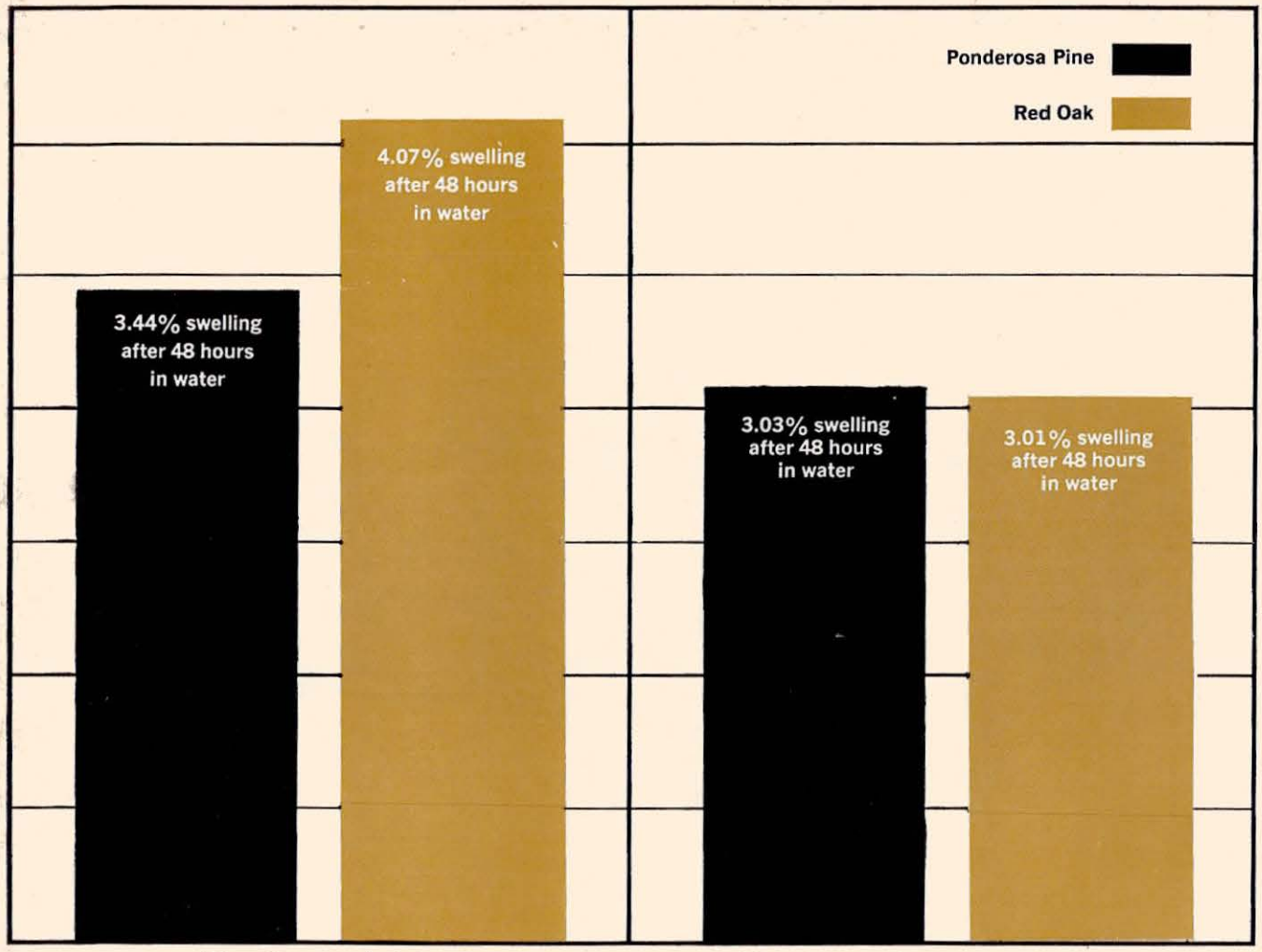
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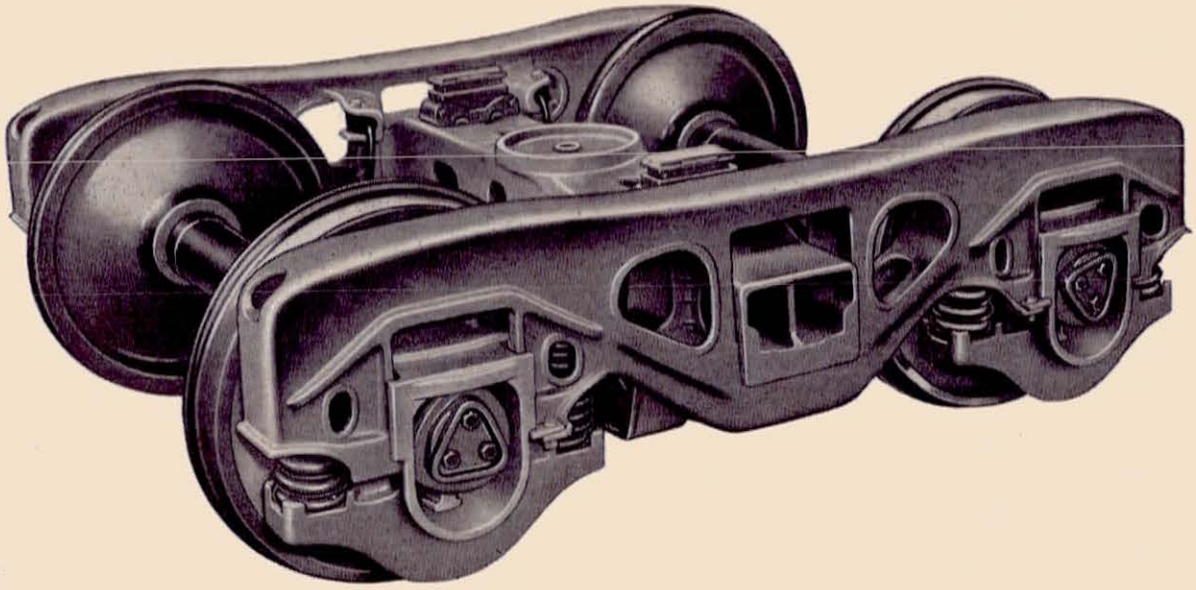

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BULK HANDLING

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23 Special equipment helps the boom
A showcase of some of the hardware that has been developed and is being used to ease the job of handling bulk commodities.

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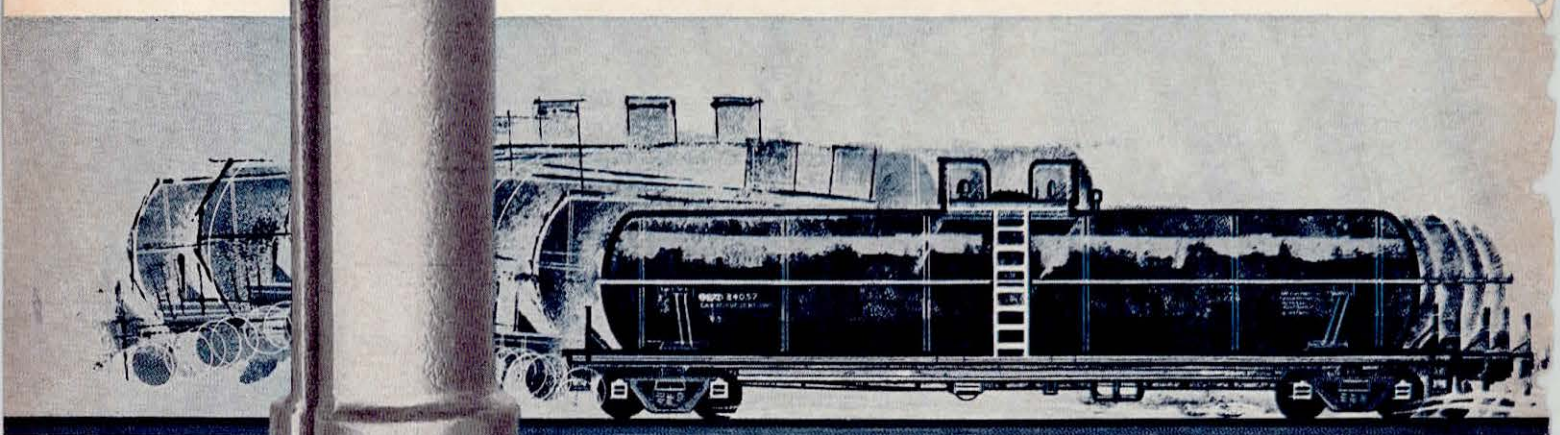

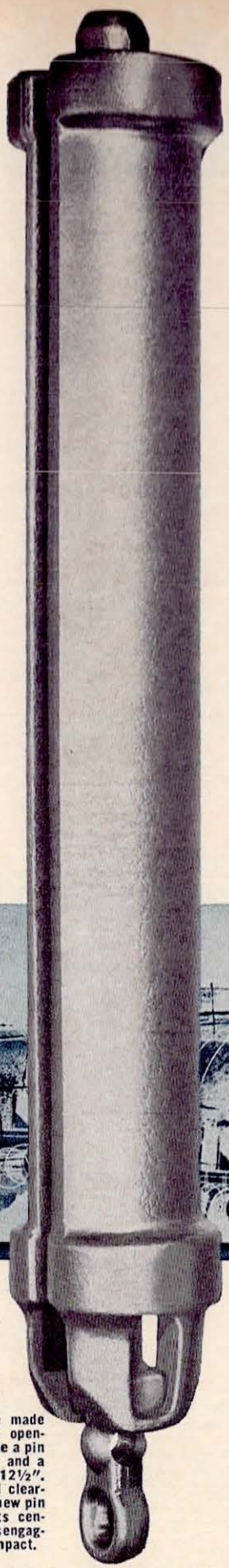

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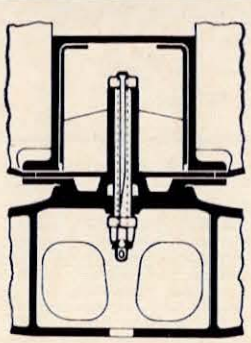
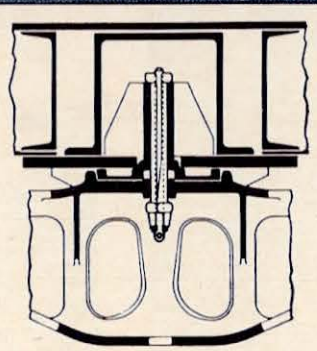


Standard Construction



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SHORT AND SIGNIFICANT

REA Express gets a new top executive

William J. Taylor, 39, who is now serving as executive vice president and general counsel of REA Express, last week was elected president and chief executive officer of the company. Taylor will take over his new positions when William B. Johnson, who now holds the posts, joins Illinois Central Industries as president and chief executive officer in a few months (RA, Feb. 7, p. 12). Wayne A. Johnston (IC Industries president) will move up to chairman of the board, and will retain the presidency of the railroad. Taylor, a former attorney with the Pennsylvania, joined REA Express in 1961. He has had considerable experience in the legal aspects of containerization and piggybacking.

●

Canadian-U.S. passenger runs threatened

The financially hard-pressed Boston & Maine, which, in conjunction with the Canadian National and the New Haven operates Montreal-New York-Washington service, has notified the ICC that it plans to discontinue the service on its portion of the run. Specifically, B&M wants to drop operation of the northbound "Ambassador" and "Montrealer," and the southbound "Ambassador" and "Washingtonian." The "Ambassador" provides New York-Montreal service, and the other two trains go between Montreal and Washington. B&M carries the trains on its line between White River Junction, Vt., and Springfield, Mass. The railroad posted discontinuance notices to be effective Mar. 7, however the ICC routinely stays such notices until hearings are held and the Commission makes a decision.

●

Railroad safety record for 1965 compiled

The ICC's Bureau of Safety and Service has released a preliminary tally of the railroad industry's 1965 safety statistics. The record shows that 11 passengers were killed in train and train service accidents last year, compared with 8 killed in 1964. Of the total number of fatalities, one passenger died in a train accident in 1965, compared with 2 in 1964. Other comparisons: injuries, 198 in train accidents, compared with 343 in 1964; 977 injuries in train service accidents in 1965, compared with 1,146 in 1964. A total of 177 employees on duty were killed in 1965, while 183 died in 1964. Employees injured in 1965 numbered 18,316, compared with 19,973 in 1964.

●

What will it be like 25 years from now

In observance of its 125th year, the Worthington Corp. will seal some predictions in a time capsule that is to be opened in the year 1990. The forecast for transportation: "There will be fewer rail lines in 1990 and those that remain will be high-speed and very heavily used super railroads. Freight trains will roll at 100 mph or faster, and in densely populated areas 150 mph passenger trains will provide rapid transit to the continuous-strip cities. Mainline rail operations will be largely automated, with trains quite closely spaced in never-ending procession under computer control."

●

A call for 'constructive' commuter line support

Leaders of the nation's construction industry have been asked to throw their support behind efforts to solve the commuter crisis. U. S. Sen. Harrison A. Williams, Jr., (D.-N.J.), who has just introduced legislation to help financially-strapped rail lines, told a dinner meeting of building officials last week that they have "a vital interest in keeping our cities from strangling in their own traffic." He said that while builders have achieved much in creating our cities, "so you must now bend your efforts to solving other problems."

MONDAY MORNING REPORT

The Eastern merger picture grows cloudier

Forecasts for the U. S. railroad industry in general are pretty much on the rosy side for 1966. But in the midst of what promises to be growing bounty is that persistent poverty pocket of railroads in the Northeast. Among them: The Boston & Maine, New Haven, Erie Lackawanna and Jersey Central, and the Reading. Long ago it was decided by almost everyone involved, that the only way out of the deficit dilemma and eventual appearance in bankruptcy court was salvation through merger. And, as has developed, that's where the rub is.

Everybody loves a winner

In the past few weeks there's been new activity on the Eastern merger scene, much of it centered around the Norfolk & Western and three carriers that want to be included in the prosperous N&W system—Erie Lackawanna, Delaware & Hudson and Boston & Maine. The three want inclusion in the existing N&W-Nickel Plate-Wabash system under an ICC condition of that merger that N&W agreed to in 1964. But the N&W has had second thoughts about taking in the three roads, saying it wouldn't be in the public interest. The Interstate Commerce Commission will open hearings on the question beginning April 20.

'Thanks, but no thanks,' from the smaller roads

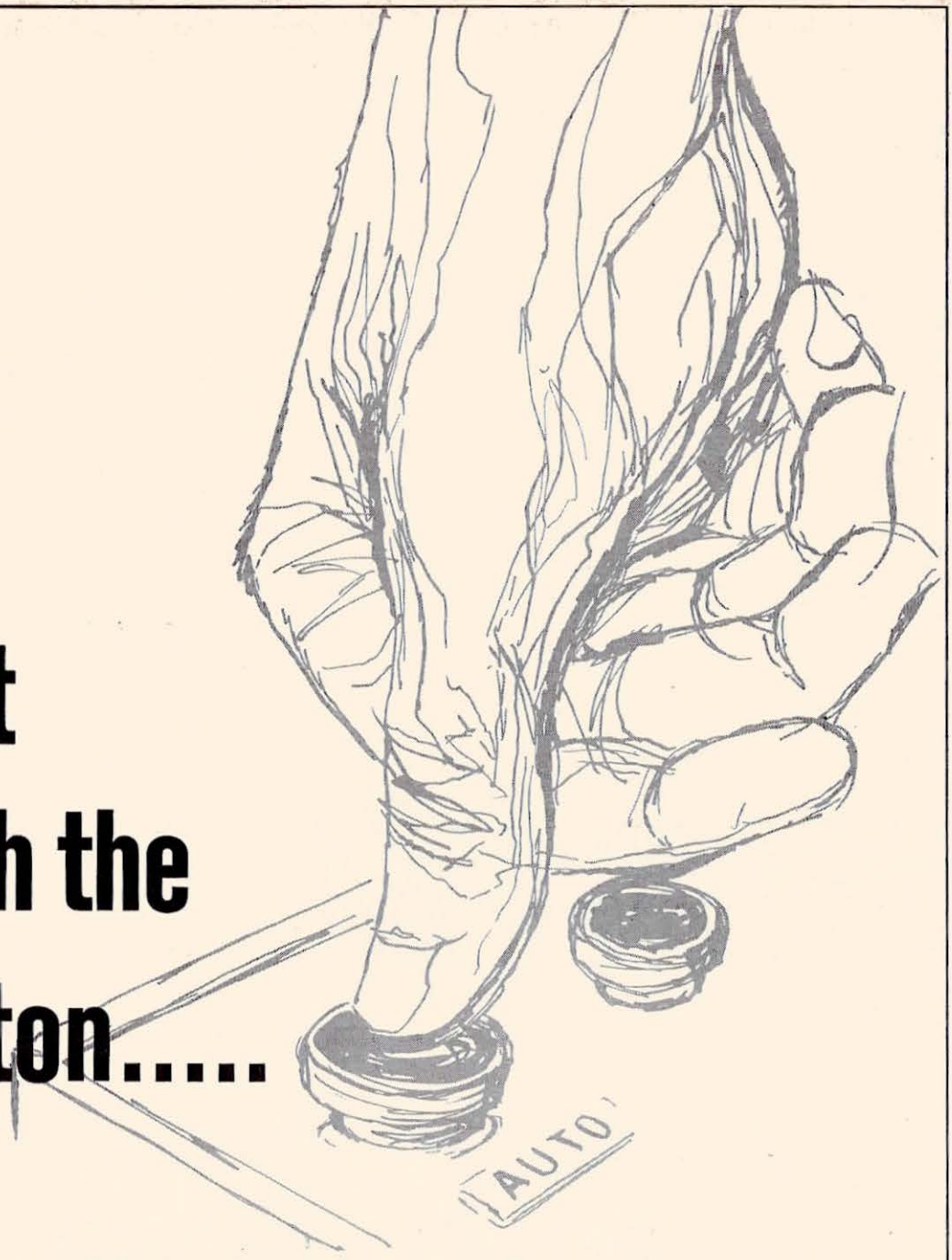
What the N&W has proposed, instead, was incorporated in a merger plan filed with the ICC last October. N&W would tie up with the Chesapeake & Ohio and include—under certain conditions—the D&H, E-L, B&M, Reading and CNJ. But when the smaller roads learned about some of the conditions, there was anything but enthusiasm for the N&W-C&O proposal. As a result, the D&H, E-L and B&M are pressing anew to get into the existing N&W system under conditions more favorable to them. Last week, Erie Lackawanna spelled out what it wants in a brief to the ICC. N&W would be required to pay the equivalent of about $16.50 a share in its common stock for each E-L common share, and about $49.30 a share in N&W common for each E-L share of 5% preferred stock. N&W President Herman Pevler's immediate reaction: "This is another ridiculous proposal." A plan for merger advanced earlier by the D&H, and another one proposed by the B&M, got virtually the same responses from N&W.

Shifting those pockets of railroad poverty

In testimony before the ICC last week N&W's senior vice president, John P. Fishwick, gave his road's view of the Eastern merger situation. The proposed Pennsylvania-New York Central merger might save the New Haven, said Fishwick, "but it would immediately make the problem more acute. It will shift the woes of the New Haven to Erie, D&H, B&M, Reading and CNJ. There is no equity in this. Inclusion of Erie, D&H and B&M in the present N&W system is likewise no solution. This would concentrate the problem of CNJ and Reading and leave these railroads without any reasonable expectation of ultimately becoming a part of a major Eastern system. There is no equity in this. And the public interest certainly is not served by shifting pockets of poverty from one railroad to another or from one state to another."

The question remains: Where do you go from here?

The ICC is being kept busy hearing the problems of the troubled roads, and further airings may result in the dissolution of what is building up as a formidable impasse. Railroad men hope so. Passenger losses continue to mount up on most of the lines involved, making these roads even less desirable as merger partners. What's needed, everyone agrees, but which no one can as yet devise, is an acceptable merger plan.



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In the plan view below of an Ortner Rapid Discharge Hopper Car, the black squares show you what the coal sees when the discharge doors are dropped. There is no place for the coal to go but down and out—and 100 tons of coal will roar out, unaided, in less than 30 seconds.

The price differential between an Ortner Rapid Discharge Hopper Car and a solid bottom gondola has been exaggerated. Before you meet with the coal supplier and the consumer concerning unit coal train service, call in an Ortner representative. You'll get true cost facts. Construction features of Ortner Rapid Discharge Hopper Cars are detailed in Bulletin NKS-3. Write for your copy.

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WEEK AT A GLANCE

Rate cuts are fine, but . . .

Great Northern President John M. Budd is hoisting the warning flag on railroad rate reductions. In remarks prepared for delivery Feb. 17 before the Traffic Club of New York, he noted the 14% drop in average revenue per ton-mile since 1958 despite further devaluation of the dollar and increases in costs of doing business. But, he warned, "there is a limit to how far the transportation industry can go on the reduction in freight charges." Even now, Budd said, "there are examples of a breakdown in transportation, both in the East and in the West, that should serve as a warning to the people in this country about the direction in which we seem to be moving." As earnings go down, he pointed out, maintenance is cut. This adversely affects service, and shippers start to use other means of transport. This, in turn, cuts earnings still further, forces maintenance and operating expenditures still lower and produces greater cutbacks in service. Said GN's president: "I am reminded of a report made by an industrial traffic manager to his superiors, priding himself on the lower freight rates that he had been able to wrangle out of the carriers. In the same report, he was complaining bitterly about the lack of equipment, the condition of equipment and poor service."

Clerks oppose railroad-owned truck lines

The 270,000-member Brotherhood of Railway Clerks wants the ICC to look into the ownership of trucking lines by railroads. Clerks President C. L. Dennis said the movement of railroads into the trucking field is "robbing the public of competition between opposing methods of transportation . . . [and] depriving an estimated 30,000 clerical and related employees of the improved coverage available under the Railway Labor Act, the Railroad Retirement Act, and the Railroad Unemployment Act." He said railroad retirement and unemployment funds are jeopardized because employees of trucking subsidiaries are under Social Security, and rail transportation services are placed in a position "where they can be disrupted by strikes not governed by the peaceful procedures and mechanisms of the Railway Labor Act." Dennis called the Commission's attention to those provisions of the National Transportation Act which direct it to concern itself with the public interest and "fair wages and equitable working conditions" for employees.

Decline continues in railroad employment

Employment on Class I railroads (as of mid-January 1966) totaled 623,745—a drop of 1.46% below the year-ago level, and 1.36% below December 1965. Figures are the latest compiled by the Interstate Commerce Commission's Bureau of Accounts.

Employee Group	No. of Employees January 1966	% Change From January 1965	% Change From December 1965
Executives, officials and staff assistants	15,000	+4.09%	+0.64%
Professional, clerical and general	134,299	−0.44%	−0.58%
Maintenance of way and structures ...	88,956	−0.03%	−2.58%
Maintenance of equipment and stores .	146,613	−2.07%	−0.53%
Transportation (other than train, engine and yard)	61,422	−4.19%	−4.17%
Transportation (yardmaster, switchtenders, hostlers)	9,998	−10.14%	+1.33%
Transportation (train and engine service)	167,457	−1.34%	−1.33%

Freight forwarder buys ship-line stock

There were some significant developments last week in the fast-growing field of containerization. The United States Freight Company announced that it had become the largest single shareholder of Moore & McCormack Co., one of the largest American ship lines and a leader in overseas container operations. Morris Forgash, U.S. Freight president, said his company acquired 300,000 shares at a cost of more than $6 million. The company already owned 60,000 shares. Moore-McCormack, now in the midst of a multi-million dollar program to convert its ships to container service, began regularly scheduled container service to Europe Feb. 11. U. S. Lines, meanwhile, announced that their first containership service to Europe will begin March 18.

Canadians study gas turbine trains

A $15 million proposal to equip the Canadian National with a fleet of high-speed gas turbine trains is being considered by Canadian government officials. The trains would be used on the heavily-traveled Montreal-Toronto passenger line. Six seven-car trains would be purchased, each capable of three one-way trips per day over the 335-mile distance between the two cities. It's expected the trains would be running by Spring of 1967 in time for the opening of the Expo '67 world's fair. Budd and United Aircraft reportedly have submitted proposals.

GUS WELTY'S LINES ON LABOR

WELTY

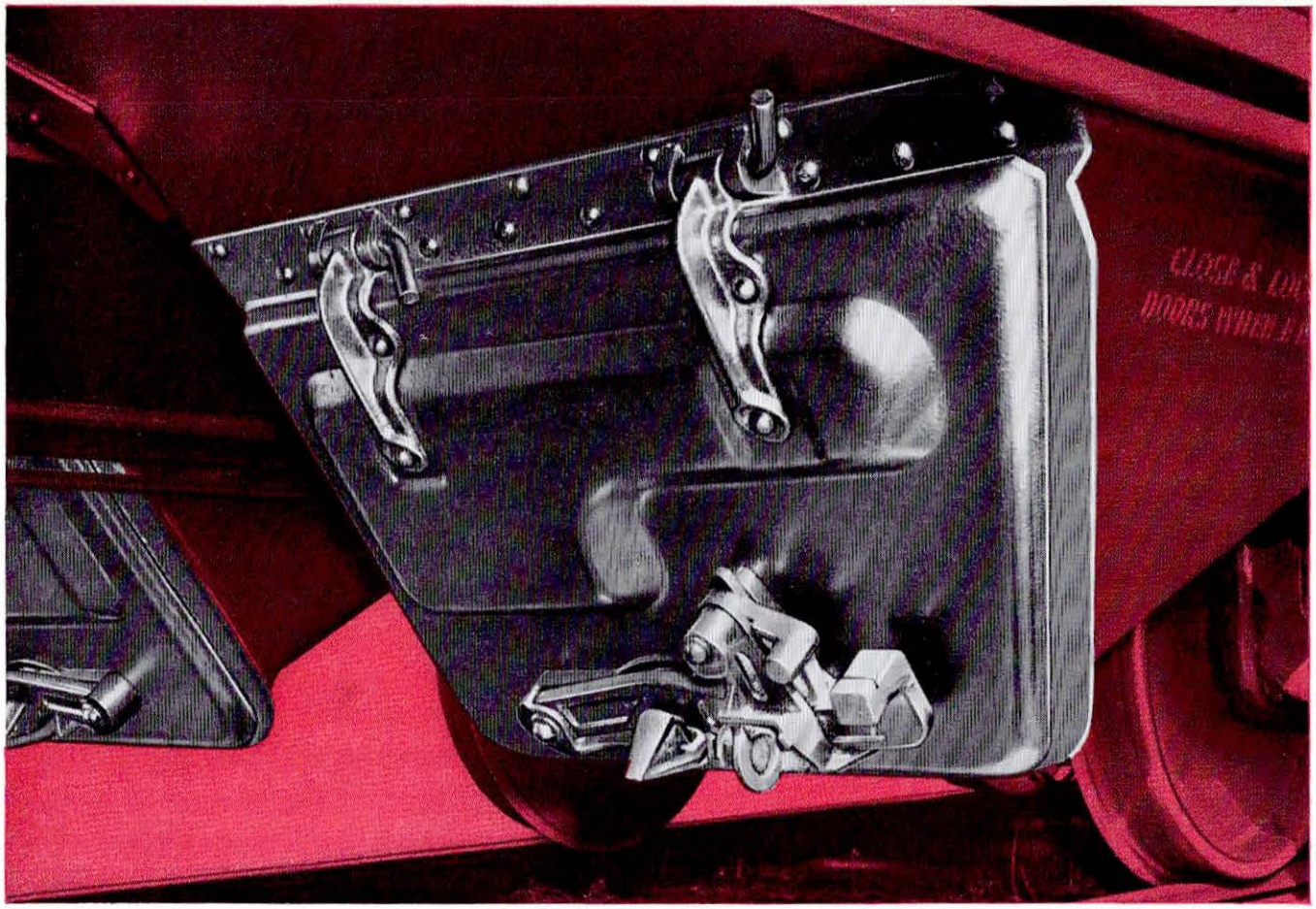
ALL SORTS OF PEOPLE, in both management and labor, spend quite a bit of time worrying about a thing called "morale"—and how it can be improved. As might be expected, theories vary pretty widely. At one end of the range are management representatives—thankfully, few in number—who contend that a man's morale should be good just because he's working and has a fairly regular paycheck coming in. At the other end are union leaders—also, thankfully, a small minority—who argue that the only way to keep up worker morale is for management to give away the business. In between these extremes are vast numbers of reasonable people in management and among the organizations. And their worries about morale may now be easing just a bit.

TECHNO-MARKETING PROGRESS by the industry in recent years has paid off handsomely in many tangible ways. But it should also be credited with a big assist in the intangible matter of morale. Railroad people can take a just pride in industry accomplishments—particularly since they're now being given the public attention they deserve. Just one off-beat case in point: More and more, railroads are showing up as backgrounds in television commercials—and while the viewer may be hearing a pitch for anything from headache pills to Mustangs, he's seeing today's railroads at work. That helps the pride.

RELATIONSHIPS between a man and his job, however, may be far more complex (though it's a wonderment why the experts have to make them sound quite so complicated). And it may take an ordinary guy out on the job to put the right words together.

A TRAINMAN FROM KENTUCKY, for example, wrote a letter to his union newspaper not long ago, and the newspaper printed it. The trainman suggested first that the paper "might do us all a good turn by reminding us from time to time that we are under a serious obligation to render a good day's work for a good day's pay." Sometimes, he said, the union press is so preoccupied with printing management's sins "that it tends to overlook some of the membership's own shortcomings and we, the members, begin to feel like nice members of a nice congregation tended by a nice preacher who preaches only the kind of nice sermons he knows we like to hear. And consequently, some of the flock have deteriorated into various types of not-so-nice hypocrites who no longer appreciate their jobs."

IF THERE'S A MORAL to this morale tale, it may be this: Morale is everybody's job—and more people may be (a) realizing it, and (b) doing something about it.



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This new car's gross-to-tare weight: 7.1 to 1

This new hopper is Alcoa® Aluminum from the trucks, up. It's light. Hauls 6.1 times its own weight—industry average, 2.9 times. Twelve per cent more load capacity than an equal length of traditional cars. Costs less to operate, too. Aluminum cars are strangers in maintenance shops.

This articulated hopper isn't a warmed-over steel car. It's a dramatic example of the ability of aluminum, Aeronca Manufacturing Corp.'s imagination and Alcoa's technical savvy. It says a lot for Southern Railway System wanting a progressive approach to hauling bulk commodities at lower cost. They came to the right place.

Prototype Southern 100 is designed for unit-train service; measures 106 ft long, rides on 8 axles, and pivots every 26 ft. Capacity is 257 tons; cubic capacity, 9,000 cu ft; light weight, 85,000 lb.

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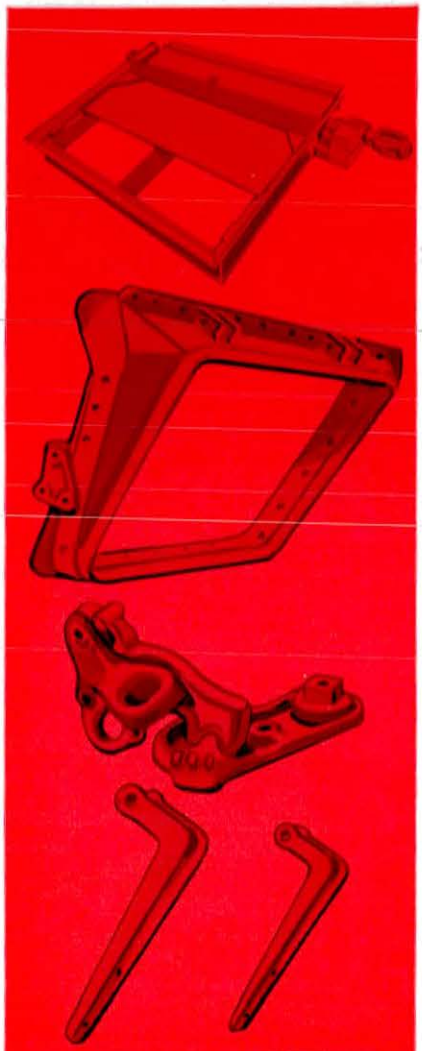

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New yard opened by Alabama company

A new track and yard complex which is said to represent "an outstanding advance in industrial plant switching operations" has been completed by the American Cast Iron Pipe Company, Birmingham, Ala.

Activities around the modernized yard are described as follows by Walter M. Boyce, American traffic manager:

"All railroads now enter and exit out of a new west entrance to the plant. This leaves the east end for the exclusive use of American switch engines. An inbound track and an outbound track have been assigned to each of three railroads (Louisville & Nashville, Southern and Birmingham Belt). Two tracks have been assigned a hold tracks where American engines place all outbound empties and some loaded cars. One railroad engine classifies these hold track cars for all railroads, placing them on the proper outbound track. This is accomplished on a rotating basis with each railroad assuming a six-month period.

"Rail car congestion has been overcome and efficiency has been upgraded for American and for the railroads. In addition, the new arrangement will alleviate inconvenience to North Birmingham motorists by reducing the number of times that North 16th Street will be blocked by inbound and outbound rail movements."

• **Why the change.** Previously, Mr. Boyce explains, the plant had inadequate track space for the number of cars being handled in and out, and a bottleneck at the single lead track at the 16th Street entrance. Each of the three railroads serving the plant was compelled to place inbound loads on any empty track space they could find. Then they had literally to search out their outbound loads from tracks all over the plant area. Consequently, all switching could not be accomplished during the plant's nonworking hours from 4:30 p.m. until 5:30 a.m. the following morning. It was not unusual for the yard area to be blocked by railroad switch engines as late as 9 or 10 a.m. By the summer of 1964, rail car congestion had become so acute that something had to be done.

The "something" involved extension,

WATCHING **WASHINGTON** WITH WALTER TAFT

TAFT

STILL INEQUITABLE, STILL RIDICULOUS—Proponents of more rate-making freedom for the railroads often argue that the present regulatory situation is grossly inequitable, and so illogical as to be quite ridiculous. They have in mind, principally, the Interstate Commerce Act's so-called bulk-commodity and agricultural exemptions. These, in turn, leave water transportation of commodities in bulk and truck transportation of agricultural and fishery products free of all regulation.

The validity of this argument has been pointed up again by figures in the ICC's latest annual report which went to Congress this month (RA, Feb. 7, p.8). The figures (for 1963) show that unregulated transportation still accounts for nearly 90% of the intercity ton-miles produced by domestic water carriers, and for nearly two-thirds of the intercity traffic handled by truck. Oil pipelines are unregulated as to more than 14% of their intercity ton-miles. Unregulated means not subject to federal regulation, and the totals include private as well as for-hire carriage. The over-all proportion of unregulated traffic is 60% of the total.

NO FREEDOM FOR RAILROADS—The railroads, of course, enjoy none of the rate-making freedom involved. Their rates are the only charges of for-hire surface carriers which are 100% regulated by the ICC. Air transportation of goods for hire also gets the full treatment—at the hands of the Civil Aeronautics Board.

This business of the airlines, however, accounts for a relatively small part of the total intercity ton-miles—only 1.3 billion of 1963's 1,700 billion. The railroads' share of this was 629.3 billion ton-miles, 43.4% of the total. They improved this relative position slightly in 1964, handling 43.51% of that year's intercity ton-miles. Meanwhile, motor transportation lost a bit of ground. Its 1964 share was down to 22.69%—from 1963's 22.88%.

INEQUITIES THWART COORDINATION—Elsewhere in the report is a soft-sell for more equitable regulation. There the Commission refers to difficulties it has encountered because the IC Act's long-and-short-haul clause applies to railroads and water carriers, but not to truckers and forwarders. The clause, part of the Act's Section 4, prohibits (without Commission permission) the charging of more for transporting freight or passengers for a shorter than a longer distance over the same route, where the shorter distance is included in the longer distance.

In the past, there have been many railroad drives for repeal of this Fourth Section. All of them failed, principally because of the opposition of intercoastal water carriers and business interests and government agencies in Inter-Mountain Territory. While the railroads would still welcome repeal of the section, the issue has been dormant for several years.

FOURTH-SECTION DIFFICULTIES—The Commission's present difficulty arises in connection with its consideration of Section 4's application to mixed rail and motor operations particularly piggy-back services. That matter is formally before the Commission in a pending case—No. 34254. After noting that, the annual report gave this advice to Congress:

"In order that the nation may benefit from the advantages of each transportation mode, maximum utilization and coordination of the facilities of each mode should be encouraged. Coordination requires symmetry of regulation; which is particularly difficult to achieve where certain statutory standards govern one mode but not another."

◄ Circle 22 on reader service card

R. G. LEWIS

AS THE PUBLISHER SEES IT...

MR. KAPLAN'S FOOTNOTE—My colleague Walter Taft tells me his teachers often warned him not to skip footnotes, lest he miss some wit and wisdom. One of his latest benefits from this, he relates, came in reading ICC Examiner J. S. Kaplan's recommended report in the tank-car-allowance case (RA, January 3/10, p. 28). A footnote reported that all parties to the case had been served with a "cleverly written and amusing" brief, in the form of a parable, comparing tank cars with camels plying the routes of Middle Eastern deserts for local water and wine merchants. The examiner announced his inability to consider the "brief" with this tongue-in-cheek comment:

"This 'pleading' was submitted on behalf of the Merchant Camels Association. The latter is not a party herein, nor has it filed a timely petition for leave to intervene. Furthermore, the 'pleading' has not been properly authenticated, its author choosing to remain anonymous, though he has been traced to Philadelphia (also the name of an ancient city in Transjordan). Accordingly, this 'brief' will not be considered as part of the record, but will be filed in the correspondence section of the docket. It is noteworthy, however, that wine or any other alcoholic beverage is forbidden to followers of the Prophet Mohammed; and that there are one-hump and two-hump camels, both types apparently having an average life span of about 30 years, the same as the depreciation period used here for tank cars."

RAPID TRANSIT NO NEW NEED—Reproductions of Harper's Weekly of 100 years ago are being published by a firm in Iowa. The issue of Jan. 13, 1866, carries a feature, well illustrated with steel engravings, on the subject of underground railways. It might have been this week's New York Times, for it reads, in part: "An underground railroad has become of such obvious necessity in New York City that the presentation of arguments in its favor is utterly needless." In describing the tendency of the populace to "reside mostly in the upper portion . . .and even across the [Harlem] River into Westchester County" it makes a plea from more speedy transportation.

OLD RAILWAY AGES—The Western Railroad Gazette from which Railway Age is directly descended was in its 11th year of weekly publication a hundred years ago. It wouldn't be feasible to reproduce complete issues, at least with any regularity, but we could reproduce a page or so in our regular issues from time to time. Do any of our readers think the idea has merit?

STILL AT IT—Ex-Pennsy railroader Art Cox, now director of Public Relations for the New Jersey State Chamber of Commerce, is still railroading. Every February Art organizes a trek from Newark to Washington for members of the CofC. Art suspects his special is one of the last of its breed—an all-parlor-car train of 20 cars made up mostly of heavyweight equipment. Seats are sold out in advance, including lounge table seats and many in the washrooms. Art's at work for the freight department, too. His association has been instrumental in getting important industries to move to New Jersey, many of whom are major shippers by rail.

MASS-TRANSIT PROPHET—New York newspapers recently reported the death of Arthur Pound—a sort of Nostradamus of the mass-transit field. He wrote, in 1923: "At present we are wrestling with a housing problem and a transit problem. Both are the result of lacks. If the lacks had been foreseen soon enough they might never have come to pass. But dwellings and subways, the latter particularly, require time for planning, financing and constructing." Too bad more attention wasn't paid to Mr. Pound 43 years ago.

by Acipco of nine parallel tracks at the southern edge of its property so that each could accommodate approximately 40 cars. Acipco also installed switches so that each of the nine tracks would be accessible from the west end of the plant area, as well as from the east end at 16th Street. The railroads, for their part, built a lead-in track from their main lines at the west end of the property connecting with Acipco's track extension.

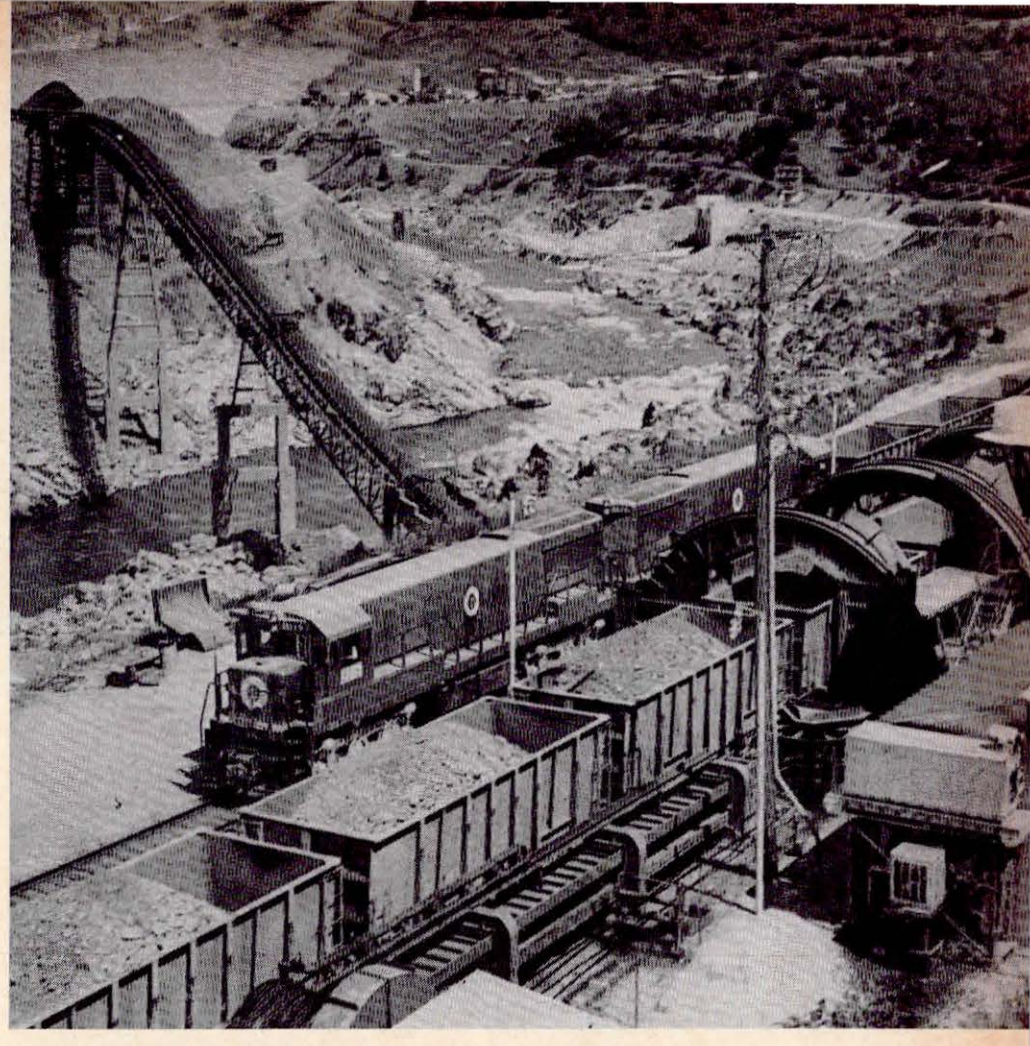
In addition to actual track construction, the work involved relocation of people renting homes in the way of the proposed extensions; razing the homes; relocation of an unloading trestle; excavation of a settling lake; demolition of a pump house; and the placing of necessary fill material. The railroads had to work out agreements as to operating rights and joint use of existing and new trackage. ■

Tamper moving its headquarters

Headquarters for Tamper, Inc., and manufacturing facilities for its complete line of track-maintenance machines, are to be established in a new plant now under construction at Columbia, S. C., according to J. K. Stewart, president. Work has started on a modern building with 125,000 square feet of floor space, and provision for expansion has been made in the design of the building, said Stewart. He added that all operations at Minneapolis, Rouses Point, N. Y., and Montreal will be directed from the new headquarters.

"This plant and office will house the most modern type of tape-control machinery for the production of our railway equipment," said Stewart, "as well as our research and development department." The initial investment of $3¼ million will provide facilities for engineering, machining, fabricating, assembly and testing, with particular emphasis on R&D, he explained. "The desire to expand our research and development program led us to select a site in the South where climatic conditions are conducive to year 'round testing," Stewart said.

It is expected that machinery will be installed in the new plant in May. Production of the Autojack Electromatic tamper, the Autoliner and the Junior Electromatic tamper is scheduled to start in June, with the company's full line of equipment being integrated at the plant by October. ■



AWESOME MOVING JOB at California's Oroville Dam involves moving 165,000,000 tons of material 17 miles in four years. A GE locomotive pulls empties past an inbound string of hoppers that are being dumped into a conveyor system that carries fill to the dam. System was designed by McDowell-Wellman Engineering Co.

Bulk-handling boom is here to stay

COSTS ARE HIGH: Despite the heavy investment required for special equipment, bulk-commodity tonnage rises dramatically.

MORE TO COME: Every day industry and railroad traffic men are seeing new possibilities for bulk-handling commodities.

How do you handle bulk traffic? You handle bulk traffic in a car with the capacity to make the railroad some money—and equipped with devices that can save customers some money too.

Like automobiles, railroad cars roll off builders' production lines in bewildering variety. Most, however, are tailored variations of a few basic models. The basic models are bigger nowadays because the railroads make money handling volume. The variety comes in the accessories. And that's often where the industry's customers make money.

Unlike auto accessories (which are bought for comfort, joy or to put the Jones' noses out of joint), accessories for cars destined to handle bulk traffic are bought as money-making propositions. Industry operating, traffic and mechanical officers juggle many factors before they buy the hatches, gates, pressurized unloading systems, interior coatings and other gadgets with which more and more railroad cars are equipped. Such hardware can balloon the cost of a railway car substantially. A mistake can be very costly. But, this accessorial hardware is making the bulk handling business boom. It is at the heart of carrier ability to capture and expand bulk traffic.

Hardware on equipment in bulk commodity service is measured, by industry traffic and mechanical officers, in money and seconds.

When Louisville & Nashville recently tested three prototype 100-ton hopper cars equipped for automatic unloading, one car checked in with a 23-second unloading time, another unloaded in 10 seconds and the last took from 10 to 15 seconds to unload. Burlington's aluminum-and-steel hopper car in unit-train service dumps a 105-ton load of coal in less than 20 seconds.

● **Requires heavy investment.** Upon measurements like those, railroads—and shippers—are spending millions of dollars. When for instance, Santa Fe inaugurates a unit train next summer to serve Kaiser Steel at Fontana, Calif., from a mine at York Canyon, N.M., the road will have spent about $7.5 million. The money will have gone for a 37.5-mile spur, 101 gondolas and 11 diesels to haul 8,400 tons of coal 1,000

miles every four days. Santa Fe expects to get $4.2 million in revenues per year from the operation for the next five years. Profit from the operation will come from its minimal use of equipment. Load, go, and unload—fast—is the essence of bulk-handling economics, and Santa Fe will understandably watch every split-second of loading and unloading capability in the operation.

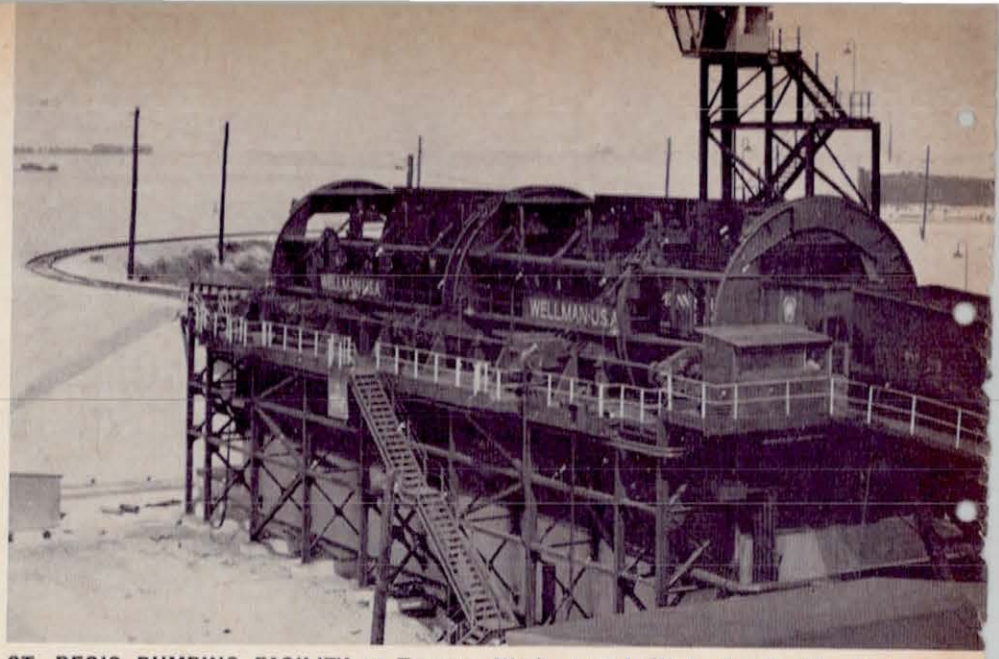
Some of the advances are not so obvious as discharge gates. Canadian National, for example, recently developed an epoxy undercoat and a urethane topcoating for covered hoppers handling loads of malt, soda ash, salt, cement and potash that will reduce interior-coating costs as much as 50%. The cost of recoating the interior of a covered hopper car runs about $500, so the improvement is substantial.

Most railroads are investing heavily in such accessories. When industry historians get around to explaining how the tide turned in the fight with competition, they may very well focus their attention on the equipment involved in bulk handling of traffic. It is on this segment of the carfleet that the accessories count for a great deal.

● **Small fleet, large cost.** If you do not count conventional hoppers, the equipment designed for handling of commodities in bulk does not constitute a large segment of the carfleet. On Jan. 1 it was slightly more than 11% of the 1,716,197 cars owned by railroads and private owners. That 11% of the fleet, however, was valued at something like $3.5 billion, or about 30% of the entire fleet's value. Part of the reason for the disproportionate value is the fact that cars for bulk traffic are relatively new. But the substantial differential is in the accesorial hardware that peculiarly enables the cars to produce substantial economies for shippers and receivers. These economies are, in the view of many rail strategists, also welding tonnage to the rails. The cars (and their hardware) have been the foundation for rates the railroads have engineered for volume tonnages, freight that is having a pleasant effect on carrier transportation ratios. Not that it is easy.

Solving problems so that bulk-handling efficiencies can be realized for a particular commodity is frequently tedious and costly.

● **Hopper depth problem.** As a case in point, consider an obstacle to effecting maximum efficiency with grain traffic. G. R. Glover, traffic vice president for Burlington, notes that improvement of equipment utilization and the possible reduction of grain storage yards is now in sight because of large covered hoppers used to handle grain. But one obstacle to maximum benefit is the need for sampling grain.



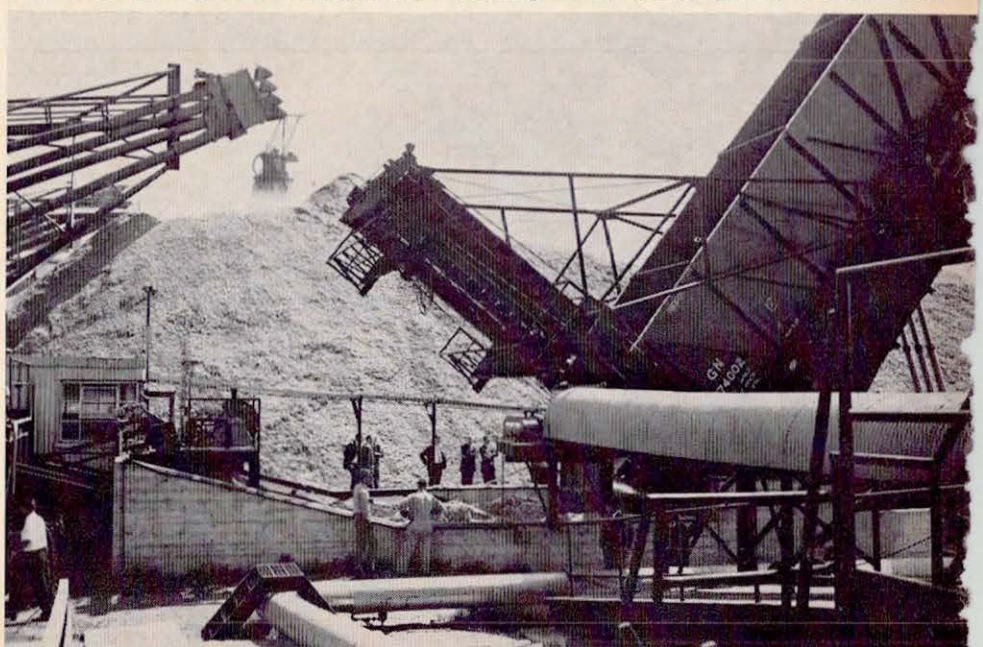
ST. REGIS DUMPING FACILITY at Tacoma, Wash., was built to handle the GN's 60-ft cars carrying 90 tons of woodchips each.

For many years there has been dissatisfaction with the probe system of sampling grain in box cars. "Now," notes Glover, "with the greater volume handled in the large covered hoppers as well as greater depth of the cars, there are considerable problems connected with getting specific and acceptable grades for trading purposes."

Several automatic sampling devices have been developed by manufacturers, all of which try to provide adequate cross-sampling and grade designation of the grain. Notes Glover: "The situation has been complicated because of the need for not only securing the acceptance of the buyers and sellers in the grain trade, but also of getting the U.S. Department of Agriculture to accept such grading as proper and tamperproof—because grain is certified by a USDA-authorized agency or bureau.

● **Automatic sampling ahead?** "In order to overcome this marketing problem, several railroads, including the Burlington, have been supporting an independent organization which has conducted many test samplings with automatic devices. They have established a grading system for grain loaded at a country elevator for direct movement to a purchaser in a distant city. Demonstrations and research have been conducted at various elevators with excellent results. Great interest in the automatic sampling devices has been generated in the grain industry, particularly at terminal elevators where there is need for such devices. The agricultural Research Service, USDA, is completing an investigation concerning the effect of various conditions on the accuracy of the sampling device. A bill is now under consideration to make appropriate changes in the Grain Standards Act. We are hopeful that all of the complications can be resolved at an early date in order to gain the full

C&O'S PIER 4 TWIN ROTARY DUMPER at Toledo is designed to deliver 6,000 tons of ship holds by way of a conveyor belt. Working on 86-second cycles, the McDowell-



benefit from this modern technology."

● **Shippers invest, too.** If there are many options confronting a carrier committee trying to design a car that will give optimum commercial and operating results for a specific commodity, there are even more spectacular ancillary devices being installed by shippers intent upon cashing in on the economies available to them via this new railroad capability for economic handling of materials in bulk. Car dumpers, car tilters, car vibrators, car thawing installations, conveyor belts dumping pits, automatic sampling installations and other expensive installations are appearing in industrial facilities all over the U.S. Not infrequently such investment by a shipper will be $1 million and more. Investments of $300,000 in car dumping setups are common. All such systems have two things in common. They are all built on money that shippers and receivers have either saved or expect to save from transportation in their total distribution costs. And, of great importance to long-range railroad commercial strategy, they constitute a powerful commitment toward a growing tonnage of bulk commodities being handled by the railroads.

● **Bulk handling booming.** Despite heavy investment required of both railroads and shippers/receivers, tonnages of bulk commodities continue to increase at dramatic rates.

Railroads like C&O-B&O, NYC, N&W, PRR and B&LE handled about 45 million tons of coal from mines to Great Lakes ports last year. N&W, C&O-B&O, WM, Reading and PRR handled more than 60 million tons from mines to ocean ports. The almost unbelievable magnitude of the changes occurring in the handling of this segment of traffic are illustrated by Norfolk & Western's Pier 6 at Norfolk, a $14-million installation that can handle the dumping of 250 cars an hour. Pier 6 can load 20,000 tons per hour into one ship or 10,000 tons per hour into two ships.

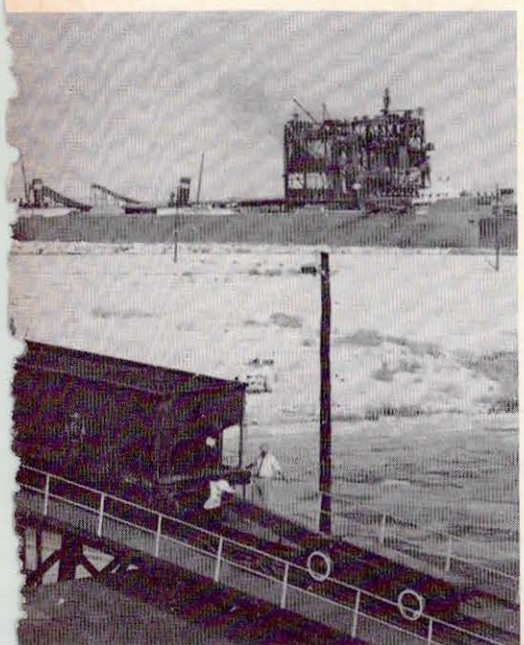
● **Commodity variety increases.** But bulk handling trends do not consist solely of massive coal tonnages. Grain traffic, like coal traffic, moves in millions of tons, from producing areas to consumers and to ports. Movement of iron ore from mines to upper lake ports and from lower lake ports to steel mills amounted to 72 million tons last year. Substantial moves of other ores, sand, limestone, fertilizer, soda ash, malt, salt, phosphates, lime, sugar and many other commodities figure increasingly in rail bulk handled traffic.

Reading is handling raw sugar from port to refineries in open hoppers with plastic covers. At the refinery the cars are unloaded by rotary dumpers. Widespread handling of flour and sugar in covered hoppers is beginning to revolutionize the food processing and baking industries. One national baking company operates a plant that accepts covered hopper loads of sugar and flour and tank cars of milk and melted butter, all of which are unloaded by pressure into storage space that had been provided around automated ovens and production lines.

● **Bulk-handling centers.** New York Central's successful use of Flexi-Flo stations for the building trades, where cars of cement and other commodities are unloaded pneumatically into trucks for delivery to construction sites, is another example of how bulk handling is spreading. Only a few years ago the carriers scored a competitive success by using covered hoppers to transport cement, thereby enabling producers to stop bagging. Reading originally constructed the Valley Forge Bulk Terminal as a flour terminal, with inbound moves of flour distributed by specially-equipped trucks. Now the facility has been enlarged to handle dry chemicals through either direct discharge to trucks or from storage bins.

● **Leased cars add cargo variety.** Private car lines, with their highly specialized tank cars, are adding to booming bulk traffic. Bulk movements of chemicals, wine, melted chocolate, and prepared foods are growing by the day as U.S. industry and commerce cash in on the economies possible with such handling. More than 100 commodities are either getting or will soon be getting this kind of handling. Philadelphia and Detroit city fathers are looking into the possibility of using integral trains to haul garbage from metropolitan gathering points to dumps outside the cities. Hardly a day passes without alert traffic officers of both railroads and industry seeing possibilities in some new commodity for bulk handling.

coal per hour from conventional hoppers into Wellman system can dump 84 cars an hour.



BULK HANDLING

The boom also has its problems

Standardization of equipment and accessories is suggested.

Bulk handling is a bright spot in the industry's generally brightening commercial picture, But, there are problems.

—Problems of decision confront railroads and shippers everywhere. How do you apportion savings that can be realized by bulk handling? That is a complicated question that has to be negotiated over and over with careful study and analysis.

—Important problems are being created by the new equipment appearing in response to bulk-handling requirements. Car capacities, trucks, metals, coatings, discharge gates, unloading systems and other accessories are headaches to industry mechanical officers. Some think the problems will be aggravated in time to come as the increasing variety of equipment begins to create shortages of experienced car designers.

—Most important of all problems stemming from the trends to bulk-handling could be the effects on the industry's fixed plant. Higher axle-loads are affecting rail, roadbed and bridges and worrying engineers.

—The complexity of equipment and accessory configurations is, in the view of many experts, going to force a measure of standardization soon. Individualized systems may ultimately squeeze too much out of over-all efficiency in rail-shipper bulk-handling operations. Some experts feel guidelines are needed soon as the bulk-handling tonnage rise continues.

—Increases in empty miles resulting from one-way use of bulk-handling equipment are also challenging basic efficiencies. Increased turnabout speeds and developing back-haul traffic of suitable commodities will be evermore important aspects of bulk-handling systems.

● **Still, the outlook is good.** With all

Labor practices: Study and revision needed

its growing pains, the outlook for bulk-handling of commodities is very bright indeed. Industry visionaries can already see rail-handling of commodities as an almost automated, integral part of industrial processes. The man on this week's cover, for example, who is using what seems to be a bulky walkie-talkie, is a case in point. It isn't a walkie-talkie. He is controlling (via General Railway Signal's ATO system) a train that has been loaded automatically and which will be automatically unloaded at Phelps Dodge's copper mining pit at Ajo, Ariz. Bulk-handling systems, generally, are not anywhere near as automated as that particular system, but the cars, the accessories and the concepts are already at hand, waiting for the proper amount of economic pressures.

Accurate and implacably realistic assessments of what a change means in terms of capital expense to both railroad and shipper are critical. As Jim Sullivan, NYC's astute vice president of marketing points out, "Providing and using assets without adequate return on capital investment leads to an insupportable debt structure. To have a successful and continuing relationship it is necessary that both shipper and railroad regard total required investment and apportion the distribution system savings so as to equitably cover investment costs and provide the profit to which each is entitled. Smart distribution executives recognize that increased railroad costs with concomitant rate increases may be required to produce net savings in their over-all distribution system costs."

● **Empty-mile problem.** Sullivan's point may ultimately prove to be the key to unlocking another problem evolving out of bulk handling that some railroad officers are viewing with alarm. E. J. Carr, Illinois Central vice president, traffic, notes that the very hardware the bulk-handling equipment uses to such good effect in handling traffic it was designed to handle "is resulting, in many instances, in the rise of empty-car-haulage miles. Equipment suitable for bulk loading more often than otherwise returns empty." Trends would indicate a slow rise in empty-mile moves in recent months.

Traffic men generally agree that the kind of realistic appraisal from distribution executives that Sullivan calls for will continue to produce more and more bulk moves despite the large investment in cars and hardware and the increase in empty return miles.

Some surprisingly small moves can lend themselves to these new techniques. Reading, for example, has long been advocating cars designed for specific traffic, but does not rule out commodities that "require innovation for movements that may only involve one car in assigned service. "Here," says a spokesman, "economies dictate what can be done."

Problems of plant are also cropping up, with both railroads and shippers. Uneven adaptation of ancillary devices on the part of shippers' customers makes bulk-handling development uneven and, at times, marginal from the railroad's point of view. Notes Burlington Traffic Vice President G. R. Glover: "Although attention often centers on gadgets, an important problem has been the lack of suitable receiving facilities for sophisticated equipment. Shippers adapt their loading facilities to this or that system—only to find that their customers are not prepared to accept shipments in this manner."

Also serious are the problems arising from the increasing use of such specially-equipped cars on railroad fixed plants.

● **Trucks need redesign?** Says F. J. May, assistant to Reading's President C. E. Bertrand: "Already, weight on rails, clearances and higher centers of gravity are forcing the industry to look at clearances and at the ability of rails and bridges to take the weights they are being subjected to. Our mechanical department feels there is much that can be done to improve car truck designs. There could be radical departures in view of the increasing weight being placed on trucks. Until now, they have just been made larger to compensate for increased weight. Complete redesigning may be in order."

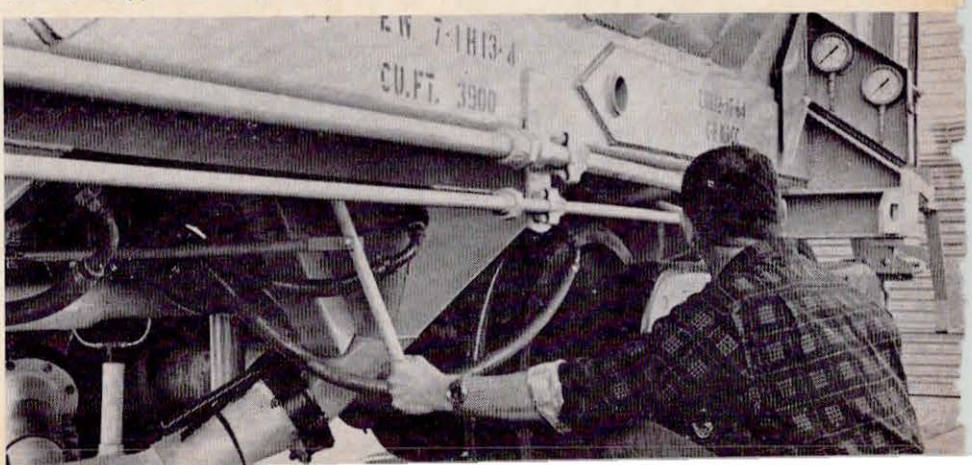
J. P. Knox, chief mechanical officer for the Frisco, feels that 100-ton cars have a light-weight problem and an operating drawback because of their high center of gravity: "The weight problem, of course, can be solved by light-weight metal, but at a high cost. Yet to be developed is a car using light-weight steel, probably alloys of high strength, at a cost ratio to insure a worthwhile investment."

Knox also notes that the problem of axle loading has not been solved despite the use of 125-ton trucks and six-axle trucks, and says "the long-term effect on track structure is still an unknown factor." He also recommends some measure of standardization for various accessories used on these cars, such as latches, gates, pressure systems and so forth" as a guideline in formulating design for equipment. Knox also thought a "hard look should be given vibrators now coming into use, as these are of a very high frequency and appear to do more damage to the car structure than the help they give in unloading is worth."

● **Car outlines changing.** Reading's May also notes increased industry sentiment for elimination of running boards as equipment size increases and clearances become critical. He points out that as much as six inches can be gained by such elimination. Also being affected by increased weights are gondolas. "Higher side gondolas are being constructed," notes May. "Some, under planning, have 60-inch sides instead of the former 42-inch standard. This creates problems with drop-end gondolas. Redesigning or elimination could well be the outcome."

Atlantic Coast Line Traffic Vice President Philip J. Lee says ACL continues to be very interested in the construction details of cars for bulk traffic: "The movement of goods in such cars is only now developing. For the foreseeable future the greatest need is in volume of equipment, not in the details of design. ACL has developed special handling features to meet diversified shippers' requirements. Our 'Whopper-Hopper' is still the largest car of its type and represent a a heavy investment in developing stainless steels for corrosive products, exceedingly large gates for rapid

PRESSURIZED UNLOADING SYSTEMS for covered hoppers handling dry bulk materials are increasingly seen in shippers' docks. Below is the pressure differential covered hopper developed by North American Car and Butler Manufacturing.



loading and unloading of commodities, six-wheel trucks to permit use of the car over relatively light bridges and a self-contained washout device, the first of its kind. Our 90-ton Tenelon cars, the only ones of their type in the East, are being used in handling highly corrosive commodities."

● **Labor a factor, too.** Soo Line Vice President-Traffic Kenneth J. Sherwood, who feels the growth of bulk-handling moves will depend upon maintenance of "consistent fast schedules" by carriers as well as continued developments in the hardware area, points out the importance of shippers' labor contracts to consistent fast loading and unloading of cars by shippers and receivers: "In some cases it appears the arrangements with the labor forces of both shipper and receiver require study and revisions if bulk-handling equipment is to continue operating successfully and expand its usefulness in the distribution and marketing systems of rail customers."

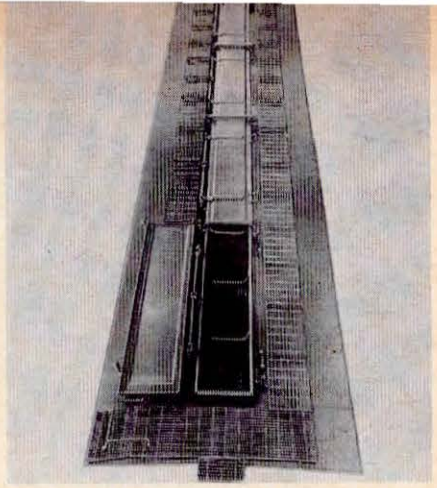
F. A. Upton, chief mechanical officer of the Milwaukee, thoughtfully sums up the complex relationships between the new bulk-commodity cars and the industry's involvement: "We feel very strongly that the design and construction of new and more efficient equipment for handling large quantities of bulk commodities in a less costly manner will be helpful to railroads in building up substantial additional revenue. This will permit greater utilization of our plant which, it is generally agreed, has substantial capacity above present demand. This kind of business, efficiently handled, will yield the additional profit required if we are to further develop and acquire new equipment."

● **Lead-time needs cited.** Knox also sounded a warning. He says the increasing sophistication of design necessitates the training of additional car-design engineers for the builders, the railroads and the AAR—as well as for the equipment specialty firms.

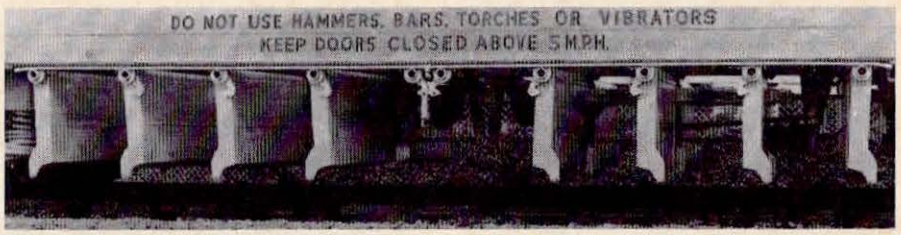
"While enthusiastic about recently developed car equipment, I feel there is pronounced need for more thorough review of car designs and accessories by the AAR and by qualified mechanical officers so that equipment obtained from the builders and the equipment specialty firms will prove to be efficient and economic to operate. Unfortunately, many suppliers have become involved with shippers in establishing details for equipment and not enough consideration is given to providing equipment that will operate efficiently and which can be maintained at low cost." Knox recommends setting up prototypes of new cars as early as possible so as to permit maximum testing and redesign time before production starts on large quantities of cars.

BULK HANDLING

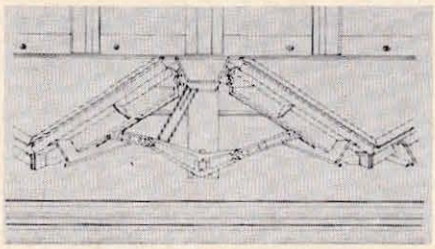
Special equipment helps the boom

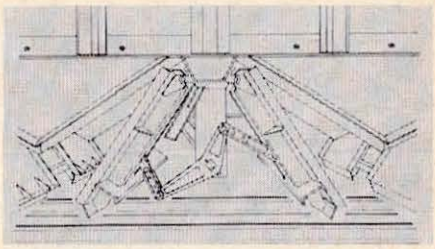


TROUGH-HATCH was an important Pullman-Standard development for covered hoppers. P-S has sold more than 10,000 cars equipped with the hatch.



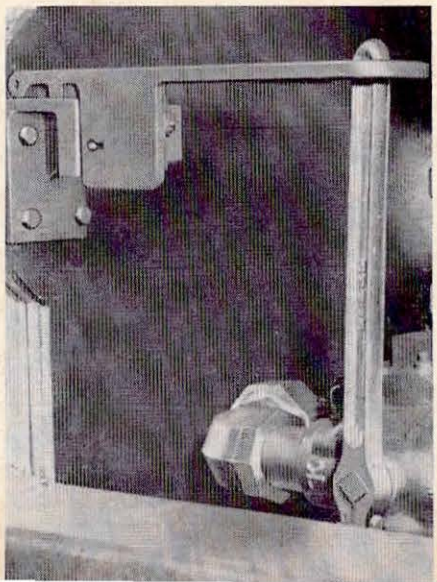
ARTICULATED HOPPER CAR built for the Southern by Aeronca is designed for maximum dumping efficiencies. About 60% of the unit car floor consists of power-actuated doors. The manufacturer says a 200-unit train of such cars could dump an 11,000-ton load in approximately 30 minutes.



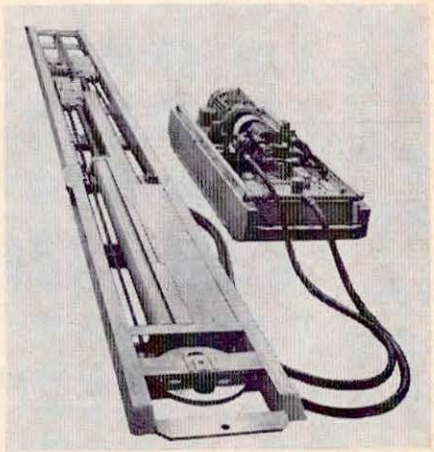


ORTNER DOOR MECHANISM uses a toggle principle. The load maintains the lock of the doors in a closed position by holding the toggle mechanism over center while in transit. The doors are opened by a lightweight pneumatic tool which overcomes the force of the load and moves the toggle off-center, which collapses the doors away from the load.

NEW LOCKING PLATE was designed by Adams & Westlake to prevent unauthorized opening of air-operated unloading doors on Burlington's 100-ton aluminum hoppers in the road's new unit coal train. Unlocking with key frees handle which actuates the hopper doors.



CAR SPOTTING DEVICE already in use in mining operations is being developed for rail use by W. R. Stamler Corp. The device fits between the rails on top of the ties. The machine has a sensing switch which adjusts for different car lengths.



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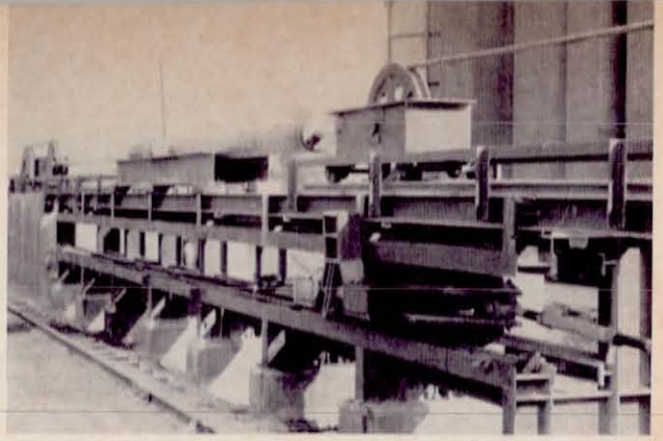
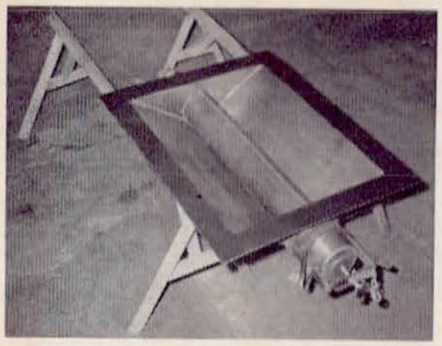
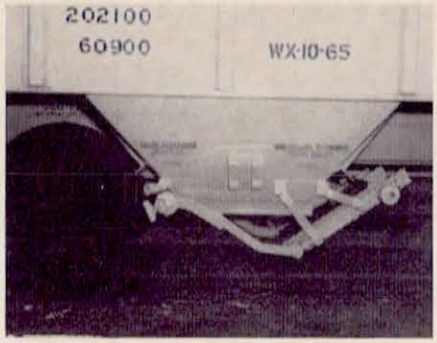
GRANU-FLOW CAR offered by B. F. Goodrich has inflatable rubber-coated diaphragms inside. When inflated, the diaphragms break up compacted loads and funnel commodity toward discharge outlets for fast unloading.



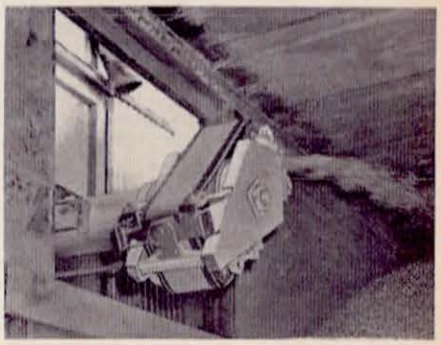
CAR SPOTTER produced by the Stephens-Adamson Manufacturing Co. can handle up to 20 cars at about 30 feet per minute. The unit is remotely controlled by radio signals. Travel is controlled by an electric eye.



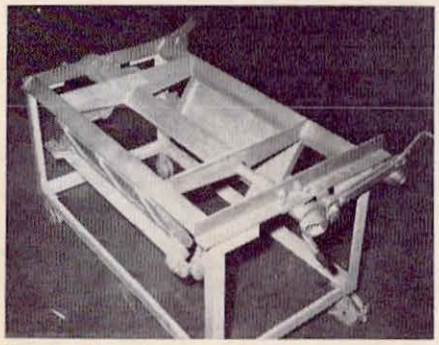
VACUUM DISCHARGE UNIT produced by Enterprise is for vacuum unloading of plastic pellets and other commodities that are highly susceptible to contamination. Control of lading flow and complete accessibility for cleaning plus simple operation make for high utilization of covered hoppers so equipped.



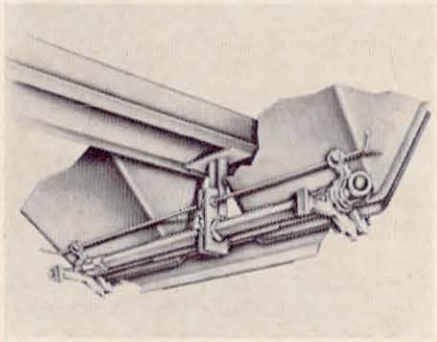
ADJUSTABLE-SPEED UNLOADING is possible with Enterprise's "Fast or Controlled Discharge" gravity units. Developed for the Atlantic Coast Line, the gate allows covered hoppers to be used with a commodity that needs to be dumped fast and also with a commodity that is released under control.



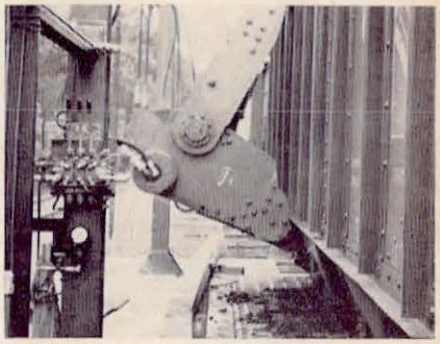
THE HI-LEVEL BOX CAR LOADER, produced by Stephens-Adamson, is a device for loading grain, fertilizer and other bulk granules over high grain doors and through plug-type doors. It comes in two sizes (10-inch and 16-inch) and can load up to 200 tons per hour. It has a swivel head.



"FAST-DISCHARGE" units are for fast gravity discharge of covered hopper ladings. Enterprise says they operate much faster than conventional devices.



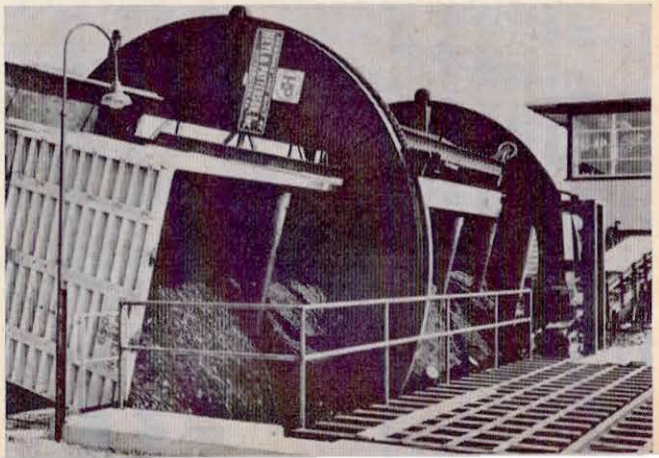
NEW NOVOLOCK double hopper door lock was designed by Keystone for equipment used in unit train or conventional service.

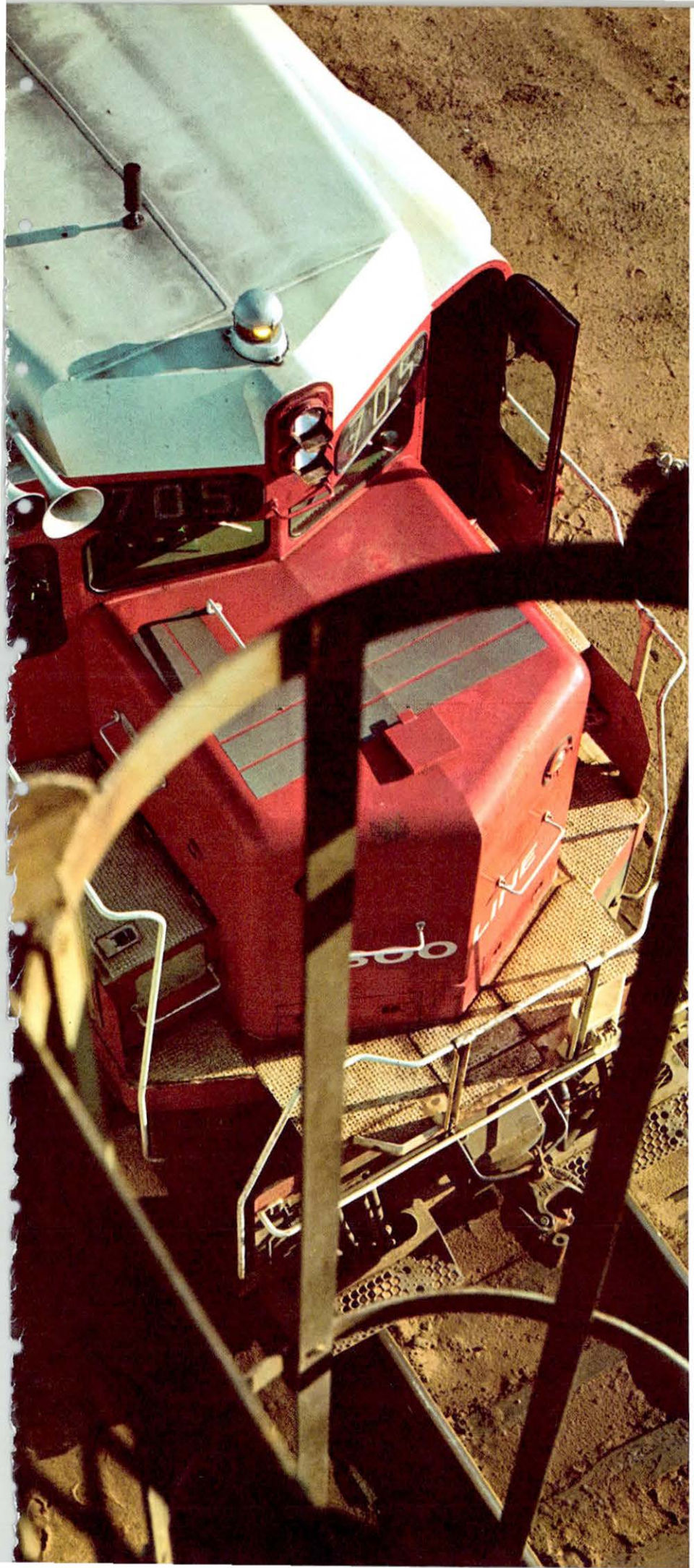


CARQUAKE is a hydraulically-powered device for shaking lading loose from hoppers. Stephens-Adamson device can be rail-mounted or stationery.

THAWING SHED facilitates turnaround problems for trains carrying aggregates during freezing weather. The Aitken Products, Inc., shed is weatherproof and made to withstand the abuse of coal and other bulk material unloading operations.

ROTARY DUMPER bought by Southern Electric Generating Company is capable of dumping cars with a maximum net capacity of 100 tons and a maximum gross weight of 130 tons. The Heyl & Patterson unit has a 60-second cycle.





Versatile is the word for new GM power on the Soo

"Take a locomotive, run it any time, any place, for any type of service!"

This kind of motive power versatility is paying off for the Soo Line Railroad Company.

A given unit on the Soo might see an overnight hotshot to Chicago, a transfer run, a way freight and heavy grain train all within the span of a few days.

New GM units do 40% of the work.

New General Motors GP-30 and GP-35 locomotives face this kind of scheduling and they've proved they're up to it. In fact, new GM units, comprising 18% of the Soo's total motive power pool, account for nearly 40% of the railroad's total unit miles.

More time on the job.

Traffic patterns on the Soo call for four different types of service: "expedite service," "heavier scheduled trains," "all service," and

continued

"heavy transfer service." New GM locomotives work in every type of service and stay on the job longer! Compared to older power, new GM units in a typical month will average 56% greater distance between delays charged to the locomotive.

Fleet maintenance costs down 12.5%.

And, new GM power has had a marked effect on fleet maintenance cost. Repair cost per unit mile on the GP-30's and GP-35's has averaged about 40% of the cost of repairing older units. In spite of the rising cost of labor and materials, the average cost per unit for maintenance, including all shop costs, has gone down 12.5% and is still dropping.

Older units reassigned or retired.

The greater unit horsepower and range of the new GM units has helped the Soo make better use of its entire fleet. Many older units

continued

GP-30 consist prepares to pick up eastbound freight at the Soo Line's Shoreham Yard in Minneapolis.

Division Superintendent Ed Hamerski discusses locomotive performance figures with Tom Kearney, Chief Mechanical Officer.

Radio equipped rail car helps Division Superintendent Jim Welton keep tab on Soo's heavy grain movement.

Hotshot freight, with GP-30's and a GP-35 at the headend, crosses the St. Croix River enroute to Minneapolis.

SOO
SOO
SOO

have been reassigned to branch line and yard service, and 61 older, more costly to operate freight units have been retired from service.

Better customer service.

Simply put, the Soo's 32 new General Motors locomotives—acquired on a two for three planned replacement program—bring more efficient, more flexible, more useful horsepower.

The Soo applies this horsepower to customers' needs with faster schedules, increased tonnage and more dependable service throughout its market area.

Ask your Electro-Motive representative to give you additional facts on GM locomotives at work. Or, write to Electro-Motive Division, LaGrange, Illinois.

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS · LA GRANGE, ILLINOIS
HOME OF THE DIESEL LOCOMOTIVE
In Canada: General Motors Diesel Limited, London, Ontario

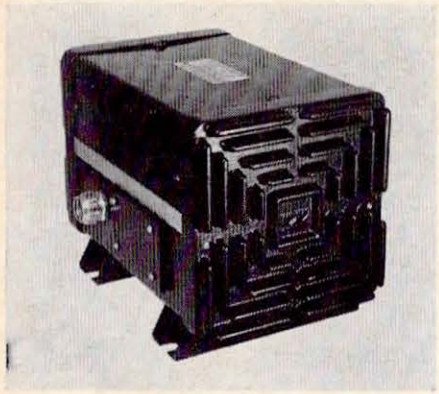
EMD

GP-30 consist heads for Chicago with piggybacks and perishables.

Yardman completes sanding operation during brief turnaround in Shoreham Yards.

Eastbound freight highballs through the rolling farmland of Minnesota's lake country.

NEW **PRODUCTS** REPORT



Converter (RA-1)

The model F-40 DC/DC converter is a new solid state power supply for cab signal, speed control and train stop equipment.

The converter supplies a constant 32-volt DC for intermittent and continuous train control systems. It features an improved splash-proof housing that also serves as an integral heat sink, prolonging life by dissipating heat.

Isolated input to output, the converter is also self-protecting from other train-carried apparatus when the main battery switch is opened. The F-40 is completely transistorized.

The converter's mounting centers and connections are the same as those of existing motor/generator sets.

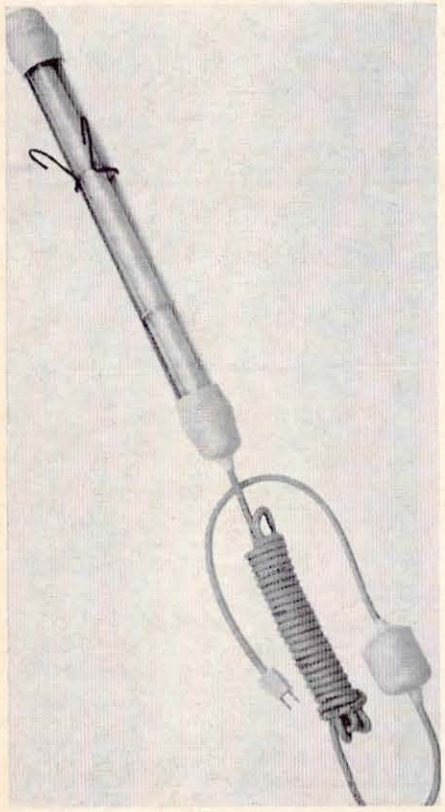
Overload provisions: input fused internally; 32-volt output self-protected; 350-volt output fused internally; transient voltage in output (line-to-line) to 1250 volts. All circuitry is insulated from ground to withstand 3,000 volts, 60 cycles AC for one minute. *Union Switch & Signal.*

TV Cameras (RA-2)

Two new third-generation transistorized closed circuit television cameras types TE-20A and TE-22A are designed to fill a broad range of commercial and industrial applications, in original or replacement installations. The TE-20A is designed for local (on-camera) control and the TE-22A is designed for remote operation.

For maximum picture detail and stability, both cameras can be converted to 2:1 positive interlace by addition of an accessory sync generator module which fits inside the camera and attaches without modification.

Video performance includes center horizontal resolution of 650 lines, minimum; electronic beam alignment, automatic light compensation with 4000:1 range, usable picture with scene brightness as low as 0.2 foot-lamberts with an f/1.4 lens, and high picture stability from regulated critical voltages. The compact, cylindrical cameras weigh 9 lb., are 11½ inches long, 5½ inches diameter. *General Electric Co.*



Fluorescent Light (RA-3)

A new Wonder-Wand fluorescent light that has several safety features, glareless illumination, and economy of use and operation was recently made available.

Housed in a vapor-tight and waterproof all-plastic case, the light's 15-watt fluorescent tube is cushioned against any average shock. It can be dropped time after time without breakage or failure. *Buckeye Telephone & Supply Company.*

RAILWAY AGE
WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. George Johnson)

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGE 29 MARKED RA-1 RA-2 RA-3

NAME ..... TITLE.....

COMPANY .....

ADDRESS .....

CITY ..... ZONE ..... STATE .....

2/21/66

☐ **Please send information about subscribing to Railway Age**

PEOPLE IN THE NEWS

BALTIMORE & OHIO.—**George A. Wolf,** engineer of bridges, appointed engineer of structures, Baltimore, succeeding **Henry Seitz,** retired after 45 years of service.

MISSOURI-ILLINOIS.—**Stanley L. Hopton,** general agent, **Missouri Pacific—Texas & Pacific,** Chattanooga, Tenn., appointed general freight agent M-I, Chicago. **Robert L. Curtis,** chief clerk to traffic manager, appointed assistant general freight agent, St. Louis, succeeding **R. D. Fullerton,** who retired Dec. 31.

NORFOLK SOUTHERN.—**Aaron Register** elected assistant comptroller, Raleigh, N. C., succeeding **J. M. Cancemi,** who resigned Nov. 30.

Major L. Swindell, Jr., supervisor of agents (accounting), appointed assistant to comptroller, retaining jurisdiction over accounting matters pertaining to agency stations.

NORTHERN PACIFIC.—Has established a freight traffic research department at St. Paul. **S. E. Collum,** research analyst, appointed manager of research. **W. E. Egan,** special sales representative for trailer-on-flatcar service, and **G. P. Churchill,** chief of divisions bureau, named research analysts in the new department. Mr. Egan's successor is **C. L. Kath,** city freight agent, St. Paul. **R. M. Montbriand,** traveling freight and passenger agent, Detroit, and **W. R. Bathan,** chief of rate analysis, St. Paul, appointed assistant general freight agents, St. Paul.

Glen C. Krahn, manager of the data processing department, appointed director, data systems and programming, **R. J. Helfman** succeeds Mr. Krahn.

T. W. Mackenroth named superintendent, Klamath division, Klamath Falls, Ore.

E. F. O'Neil, traveling freight and passenger agent, San Francisco, appointed assistant general freight agent—rates, Seattle.

NORTHWESTERN UNIVERSITY TRANSPORTATION CENTER.—**Dr. William L. Garrison** appointed director, to succeed **William C. Flaherty,** resigned.

PENNSYLVANIA.—**Joseph T. Bodell,** coal rates manager—East, Philadelphia, appointed general coal traffic manager—rates, Philadelphia, succeeding the late **A. Lynne Graburn, Jr.** Mr. Bodell will supervise system-wide pricing relating to coal, coke and iron ore traffic. **F. Roberts Weis,** coal rates manager—Central, Philadelphia, appointed coal traffic manager. **George J. Betzler,** commerce manager, appointed coal rates manager. **Harold R. Rockefeller,** chief rate analyst, succeeds Mr. Betzler as commerce manager.

A. Frederick Brinks, chief clerk to vice president—traffic, Philadelphia, appointed district sales manager, Buffalo, N.Y.

David E. Pergrin, superintendent, Northern Division, Buffalo, transferred to the Chesapeake Division, Baltimore, succeeding **John M. McGuigan,** named assistant general manager, Western Region, Chicago.

READING.—Transportation Department title changes at Philadelphia: **Ray C. Neal, Jr.,** senior transportation engineer; **Gene O. Cox,** transportation engineer; **Steward W. Moyer,** superintendent mechanization; **Harry B. Gauntt,** superintendent power utilization and train movement; and **John P. Ascher,** superintendent—car service and training.

Peter A. Lucente, assistant to comptroller, appointed assistant to director of corporate planning.

C. William Pleiss, assistant comptroller, named auditor, general accounts.

Lee R. Letterson, director of data processing and development, reports to the Executive Office, effective Jan. 1.

Personnel Department title changes, Philadelphia: **Byron E. Rice, Jr.,** director personnel and labor relations; **Vance W. Bigelow,** manager labor relations; **Spencer H. Heltzinger,** assistant manager labor relations; and **James Irving, Jr.,** superintendent personnel and relief association.

L. J. Hauer appointed freight claim agent, Philadelphia, succeeding **W. H. Krickbaum,** who retired Dec. 31 after almost 46 years of service. Mr. Hauer was formerly office manager, freight claim department.

William C. Noble appointed general sales manager, TOFC Service, Philadelphia. **J. Howard Miller** named sales manager—national accounts. Abolished position of director TOFC sales, formerly held by Mr. Miller.

Theodore F. McLaughlin, regional sales manager—coal traffic, Boston, transferred to New York, succeeding **F. J. Gormley,** named administrative assistant to director of coal traffic, Philadelphia.

RICHMOND, FREDERICKSBURG & POTOMAC.—**Thomas B. Choate,** assistant director of personnel, appointed director of personnel, Richmond, Va. Mr. Choate succeeds **Charles E. Mervine,** former assistant to president, assistant secretary, assistant treasurer and director of personnel of the RF&P, who has been appointed director of personnel, **Atlantic Coast Line.**

ROCK ISLAND.—**B. G. Wright,** assistant regional manager-freight sales, Des Moines, Iowa, appointed director of freight claim services, Chicago. **E. C. Roth** transferred from Detroit, to replace Mr. Wright. **John H. Gilfillan,** manager of freight claims and freight claim prevention, Chicago, named superintendent of safety there. **Winton B. Entrekin,** formerly manager of rail-highway service, **Norfolk Southern,** appointed to the newly established position of regional manager, trailer service sales, Memphis, Tenn. **George R. Huntoon,** superintendent of safety and operating rules, retired recently after 45 years of service. **Howard S. Ownley** named manager marketing, trailer service. **Thomas A. Stoery** appointed general freight agent. **Delbert C. Gerstenberger** named automotive fleet manager-system.

ROCK ISLAND MOTOR TRANSIT.—**W. B. Robison** appointed director-sales and traffic; **M. P. Thomas,** general sales manager; **Gail C. Hughes,** district sales manager in the Quad City area, Davenport, Iowa.

SEABOARD.—**J. Claude Epting** appointed district manager freight sales, Hamlet, N.C.

Frank C. Strickland Jr., road foreman of engines, Wildwood, Fla., named trainmaster, Mulberry, Fla.

SOUTHERN.—**Joseph E. Seiller,** division storekeeper, Spencer, N.C., retired Jan. 1 after 47 years of service, and that position abolished. The division storekeeper at Spartanburg, S.C., will exercise jurisdiction over the operation at Spencer.

SOUTHERN PACIFIC.—**Vernon Eaves,** assistant general auditor, San Francisco, retired Jan. 31 after more than 45 years with the SP.

H. J. McKenzie appointed assistant manager, data processing, San Francisco, succeeding **J. M. Halliday,** who retired Jan. 31, after 45 years of service.

George A. Wolf
B&O

Robert A. K. Smith
GSI

Thomas C. Barton Jr.
GSI

Delancey J. Davis
GSI

Richard L. Lich
GSI

Keith Bunnel
WABCO

Supply Trade

Robert A. K. Smith has been appointed vice president—sales, Castings Division, **General Steel Industries,** Granite City, Ill. Mr. Smith was formerly vice president—sales, **Scullin Steel Co.,** St. Louis. **Thomas C. Barton Jr.,** manager of railroad sales, Granite City, has been promoted to manager of eastern sales, GSI's Castings Division, at Philadelphia, Pa.

Delancey J. Davis, vice president, **General Steel Industries, Inc.,** Granite City, has assumed additional duties as general manager of GSI's Castings Division there. **Richard L. Lich,** vice president—engineering, has been appointed vice president—engineering and research, a new position with corporate-wide responsibility.

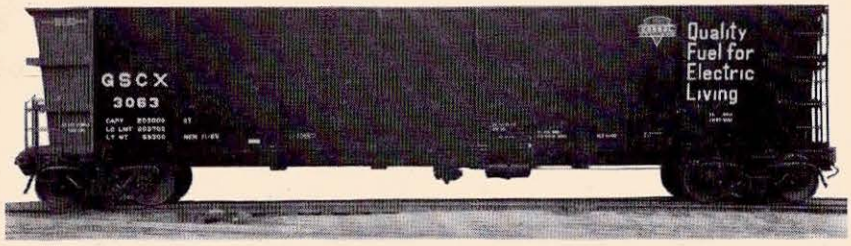
Keith Bunnel has been appointed general manager of the newly established **WABCO Financing Corp.,** at Pittsburgh, Pa. Mr. Bunnel, an accounting and financing specialist, will report to **Richard A. Lenon,** WABCO's vice president—finance and treasurer. The new captive credit company will offer a financing service to WABCO's customers and distributors.

More tons of coal are moving at less cost in unit trains

Here are a few of the newest cars

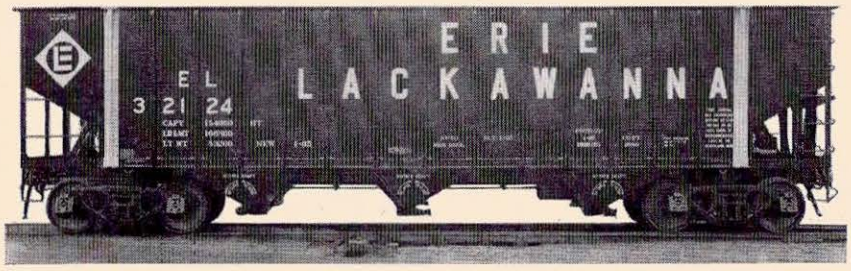
100-TON QUADRUPLE HOPPER

Cubic Capacity (level)	3,620 Cu. Ft.
Cubic Capacity (10" heap)	4,040 Cu. Ft.
Inside Length	51'5¾"
Height to Top Side Angle	11'4"



100-TON ROTARY DUMP GONDOLA

Cubic Capacity (level)	3,850 Cu. Ft.
Cubic Capacity (10" heap)	4,250 Cu. Ft.
Inside Length	49'11/16"
Height to Top Side Plate	12'4⅛"



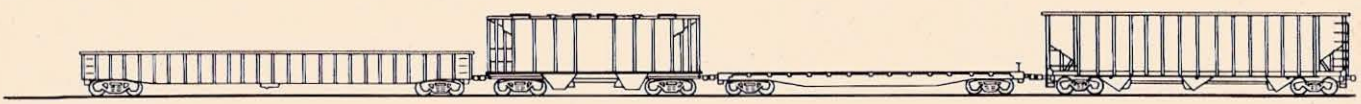
83-TON TRIPLE HOPPER

Cubic capacity (level)	2,880 Cu. Ft.
Cubic Capacity (10" heap)	3,200 Cu. Ft.
Inside Length	40'7¾"
Height to Top Side Angle	11'4"

These three Greenville hopper cars cover the range of efficient, unit train service. They dump on the run, unload through conventional gates and, equipped with rotary couplings, stay in a unit during rotary dumping. They operate in standard as well as automated, remote controlled trains.

Greenville builds them all . . . has them all in service. Unloading can be accomplished in minutes. Chances are excellent that the unit train car you want already exists or can be created quickly from a Greenville standard. If you're involved in mining, moving or using coal, your best bet for current, accurate unit train facts is Greenville.

GREENVILLE STEEL CAR COMPANY
Subsidiary of Pittsburgh Forgings Company
GREENVILLE, PENNSYLVANIA



Circle 11 on reader service card

Consol Coal: New unit-train owner

Company is the first coal producer to acquire cars for unit trains; by 1969 its gondola fleet is expected to total 800.

Consolidation Coal is adding a new dimension to the unit-train concept. The Pittsburgh-based producer has begun acquisition of its own fleet of high-capacity gondolas which are to be an integral, long-term factor in the supply of coal to certain electric utilities.

By 1969 about 800 Consol-owned cars will be moving several million tons annually in trains which will serve to bind electric power generation ever more firmly to coal and to its movement by rail.

Although the ownership of railroad cars by a coal producer is not new, Consol has pioneered their acquisition for today's unit trains. While railroads, and then utilities, acquired equipment for "dedicated" coal hauls in recent years, it remained for Consol to be the first mining company to take the step.

There is nothing altruistic about the projected $10-million-plus car program —it is a hardheaded business decision by one of America's largest coal producers. Taking advantage of the same type of large-volume rates which have made car owners of utilities like Pennsylvania Power & Light (RA, June 29, 1964, p. 38) and Chicago-based Commonwealth Edison (RA, April 20, 1964, p. 18), Consol last year placed its initial 126-gondola order (two trains) with Greenville Steel Car. Cars for two additional trains will be built this year.

The freight rates involved are those which offer an incentive for the use of cars not owned by the railroads participating in the unit-train operation. In the course of close figuring on the lowest delivered cost of coal, Consol planners determined the practicability and economy of providing producer-owned cars.

• **Stakes are high.** The National Power Survey estimates that the electric utility industry will be using 500 million tons of coal annually by 1980—more than double its consumption in 1965. Consol, however, is not being lulled into any false sense of security. The threat of government-subsidized nuclear power generation is confronting the coal industry with what Consol Vice President L. J. Huegel terms "one of the greatest challenges in its history."

The power plants now being considered "which could go either atomic or fossil fuel are large units—generally, not less than 600,000kw," explains Huegel. "If coal wishes to supply such plants, it must accommodate itself to supplying large volumes over a prolonged period at competitive prices. It is also significant that, if the decision is to go atomic, the plant, once constructed, will remain forever an atomic plant; it cannot convert to another fuel. Thus, coal gets only one chance to compete, and that generally three years before the plant goes on the line."

• **The railroads' role.** In the course of providing the essential low-cost transportation if coal is to win this coal-versus-atomic competition, Huegel sees an absolute necessity for shuttle-train rates "in the 4 to 6 mills per ton-mile range." To accomplish this, he says, railroads must maximize car, motive power and crew utilization, "which means fast loading and unloading; large and generally privately owned cars; 9,000- to 12,000-ton trains; and elimination of such frills as weighing, blending and switching at origin and destination.

"It is this type of rail transportation which requires specially designed cars moving as a single consist which will be needed in coal's efforts to compete with the atom and which will be used with increasing frequency," Huegel points out.

• **ICC is a factor.** Huegel concedes that the new approach to rate regulation taken recently by the Interstate Commerce Commission is also important in the changing role railroads must play in coal's marketing. "Instead of deciding rate issues on the technical grounds of whether point-to-point shuttle rates were discriminating, the ICC wisely chose to look at over-all market conditions," he says. "It recognized the need of railroads to provide transportation which would permit coal to move in competition with other fuels requiring no transportation or that would move via methods other than railroads. It was not a question of the rates discriminating in favor of one coal shipper versus another, but of coal moving at the lower rates under these stringent conditions—or not at all."

Consol has negotiated a number of these shuttle-train rates, based on long-term contracts. More than 11 million tons annually will eventually move under these arrangements—approximately 8 million tons in cars owned or leased by Consol. "We are in the process of negotiating other contracts which could increase these figures substantially," adds Huegel.

• **Widely dispersed.** North, east, south and midwest: that's a thumbnail description of the geographical dispersion of the unit-train services to which Consol's own cars will be assigned. Utilities in Michigan, Georgia and New Hampshire will be served directly. In addition, power stations along the Mississippi River will soon be burning coal initially handled in Consol unit trains. Services to which the cars will be assigned include:

—Sparta and Burning Star, Ill., to Kellogg, Ill., over the Missouri Pacific's Missouri-Illinois line, a 25- to 50-mile shuttle operation with delivery to a new Consol rail-barge transfer facility on the Mississippi River;

ROTARY COUPLERS are indicated by special

—Georgetown, Ohio, to Detroit, Mich., a 311-mile trip via Pennsylvania and New York Central, with delivery to the Detroit Edison plant at Trenton Channel;

—Egypt Valley, Ohio, to West Olive, Mich., a 468-mile run via Baltimore & Ohio and Chesapeake & Ohio, with delivery to Campbell station of Consumers Power;

—Arco, Tenn., to Milledgeville, Ga., a 457-mile route via Southern and Central of Georgia, with coal going to Georgia Power's Plant Harllee Branch;

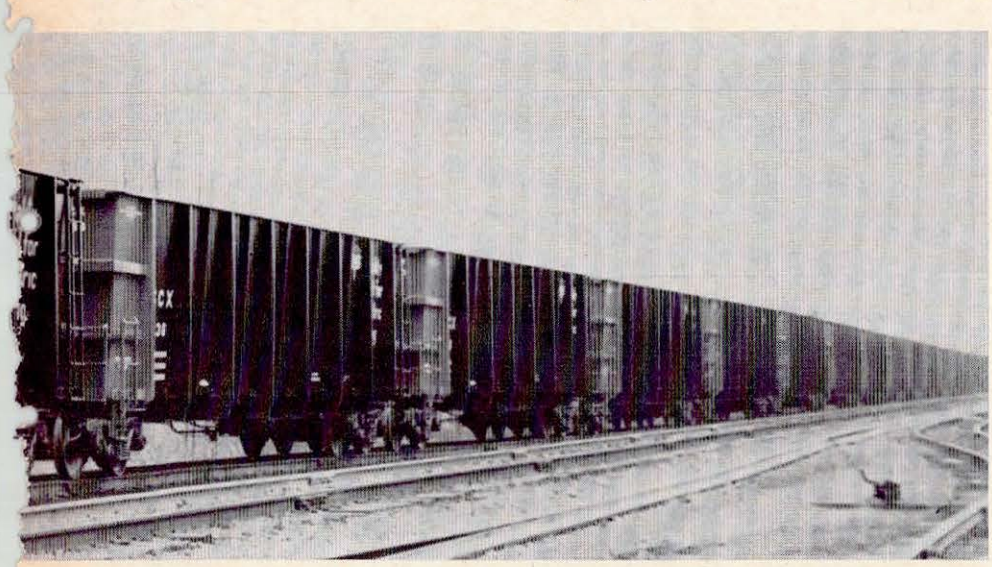
—Loverbridge, W.Va., to Bow, N.H., 868 miles via Pittsburgh & Lake Erie; New York Central and Boston & Maine to Public Service of New Hampshire at Bow.

• **Choosing the equipment.** What type of cars would best serve the dispersed, diverse operations of the proposed unit trains? That was the problem confronting Consol engineers once it had been decided to own the equipment.

"Railroads are partners with Consol in these services and we must rely heavily on their experience in designing and operating coal-handling cars," says C. E. Witt, Consol vice president. While mine cars have been bought by Consol in huge numbers for many years, the main-line rail movement is not directly comparable.

"We have not tried anything exotic," says Witt. "To assure an adequate return from these services we just cannot afford to be wrong. Consequently, Consol has tried to stick to railroad-proven design and construction."

The 10,000-ton-train rates immediately dictated cars of at least 100-ton capacity to achieve trains of practical length. The cars had to comply with AAR clearance requirements because of the diversified routes over which they would operate.



coloring on ends of cars for short-haul service to dumper on the Mississippi River.

• **Car maintenance vital.** Consol engineers worked closely with designers at Greenville Steel Car to produce the rugged coal carriers which are such an important factor in making the utility contracts profitable, long-term ventures. "A high percentage of the cost of car ownership is maintenance," explains Witt. "If we were to have to put a new body on each of these cars during their 15-year life, it would throw our costs all out of line."

To be as certain as possible that there will not have to be complete rebuilding during the 15 years, Consol had Greenville's engineers specify low-alloy, high-tensile steels throughout the carbody. Sides and ends are ¼-inch plates; floors are 5/16-inch material. Curved fillers with 1½-inch radii are welded at the junctures of sides, ends and floor so that there will be no sharp corners in which lading could hang up.

• **Hopper vs gondola.** As basic as the decision about car size was car type: Would Consol cars be hoppers or gondolas? This had to be a decision based on marketing studies. Would Consol's customers install car dumpers necessary for unloading gondolas, or would they find more acceptable between-the-rails discharge pits with which hoppers could be used?

Consol's own engineers already had some definite ideas about their own preferences—based on years of handling railroad-owned cars around their mining operation. Hoppers on coal cars were regarded as sources of leakage and constant maintenance and have been found vulnerable to damage in derailments. First costs are also somewhat higher with hopper cars.

• **The basic car.** "The final car design is a basic one with variations only to suit different coals and different operating conditions," explains Witt. From Consol's dispersed mines comes coals of varying densities—a range from about 49 to 56 pounds per cubic foot. So that cube will be utilized fully with these different coals, the gondolas are of two sizes with sides and ends of those already built being 6 inches higher than some gondolas yet scheduled for production. Bodies of the 3,850-cubic-foot cars now in service have an inside length at the top of 49 feet 11/16 inch and a width of 9 feet 9 3/16 inch. All cars have sides and ends sloping outward from bottom to top to speed discharge of lading when they are inverted in dumpers.

Other than body cube, the only variation is use of rotary couplers in some cars. Here there was unanimity on the part of utilities—none wanted them. Consol, on the other hand, rated rotary couplers important in its short-haul turnaround service over the Missouri Pacific from Southern Illinois mines to the Mississippi River. Trains involved in the long hauls to utilities will spend much less of their service lives being unloaded.

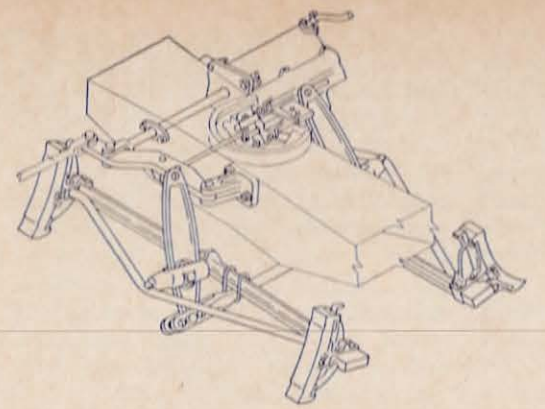
Couplers, rotary and conventional, have been supplied by National Castings which also provide yokes, truck frames, bolsters, and striking castings. Trucks are fitted with Crucible springs, Timken roller bearings, Wabcopac brakes, and Pittsburgh Forgings side bearings. U.S. Steel one-wear, wrought-steel wheels are used. Draft gears are of the Cardwell Westinghouse Mark 50 type.

• **'Train' is the word.** At every stage of the development, Consol has been planning in terms of trains, not cars. Because of the rate structure, the goal of the development has been to produce a series of trains, each of which will handle 10,000 tons of coal economically and with a minimum of delay or out-of-service time. Trains are being ordered with virtually no spare cars, meaning that emphasis will be on maximum reliability with respect to cars and to train operation.

Consol's own unit trains are not the only ones which are transporting the company's output. Traffic v.p. Huegel reports that over 85% of Consol's coal for Eastern utilities—up to 7 million tons annually—now moves in regular 7,000-ton unit trains made up of railroad-owned cars. Coal for Ontario Hydro is delivered from Consol's West Virginia mines to Lake Erie at Conneaut, Ohio, in B&O-Bessemer & Lake Erie 6,000-ton trains (RA, Feb. 22, 1965, p. 47). A similar move, also involving lake shipment, is that from Egypt Valley, Ohio, to St. Clair, Mich., through the port at Lorain, Ohio, handled in 10,000-ton B&O trains.

• **More to do.** "We are convinced," says Huegel, "that as railroad management becomes more familiar with our competitive problems, they will work harder at reducing their costs so as to provide the lower rates necessary to keep them in the coal transportation business.

"I am also convinced," he adds, "that railroad management must educate the rail unions of the necessity for greater cooperation in the handling of the large trains at minimum expense. Interdivisional pooling of crews and motive power, the use of road crews to move trains directly from the mine to the power station, and other changes which are difficult to bring about under the present obsolete work rules, must be applied with greater frequency." ■



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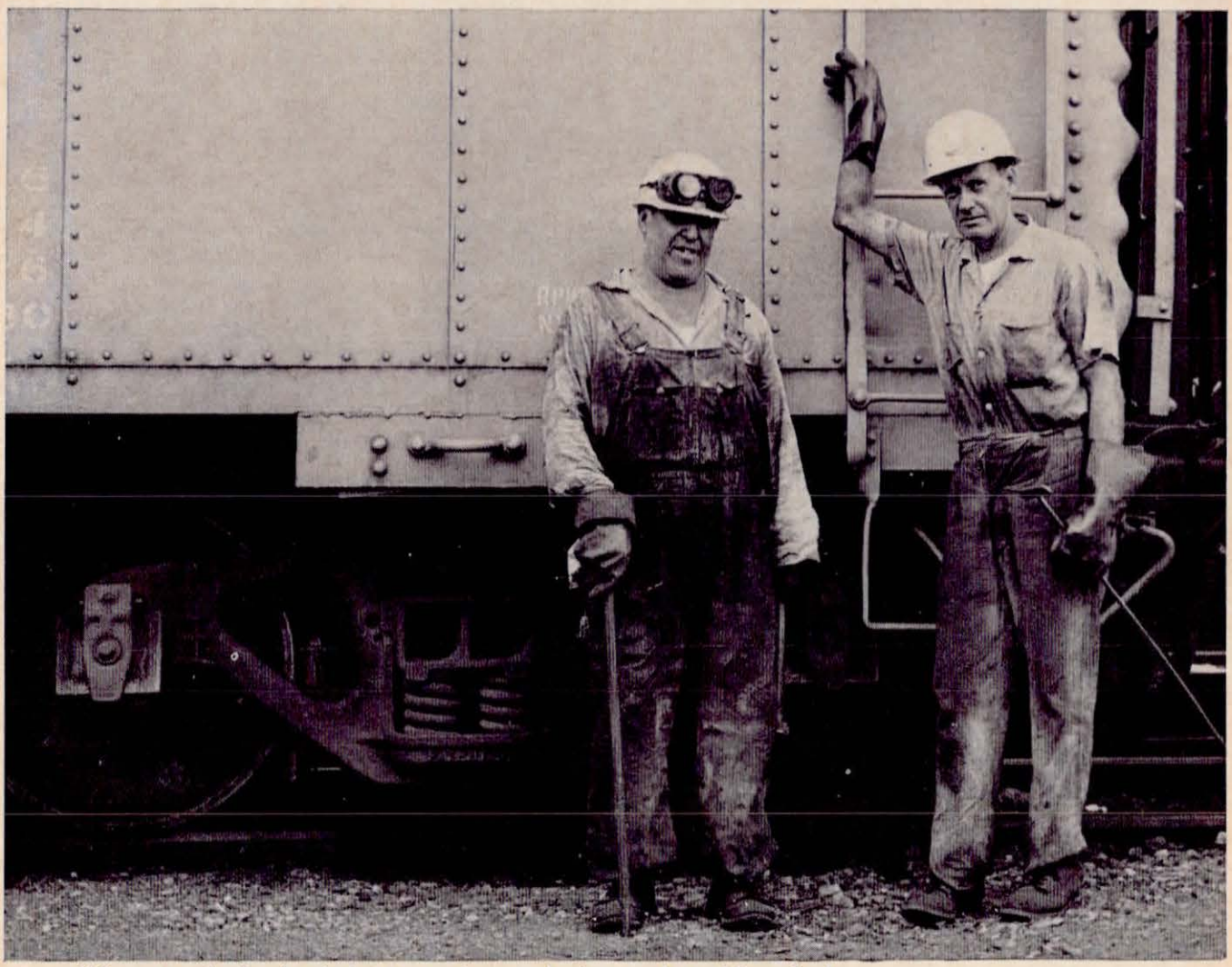

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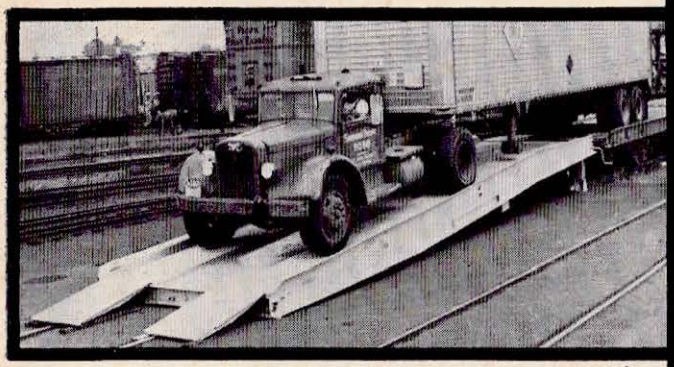

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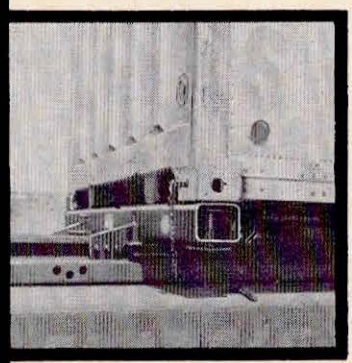

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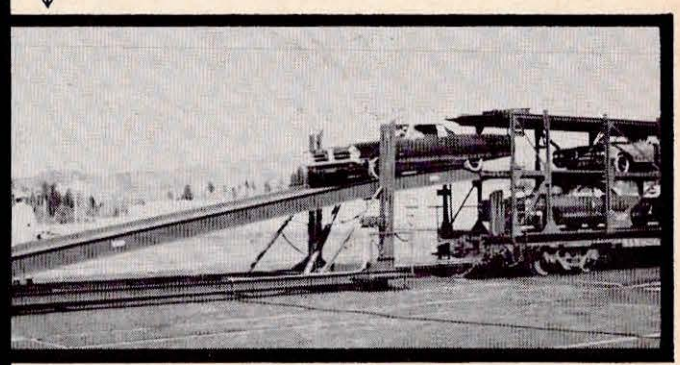

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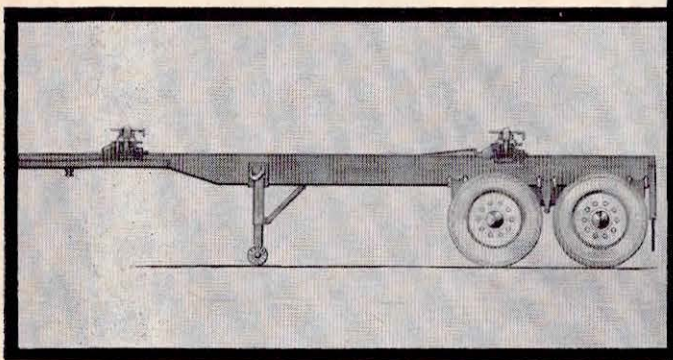

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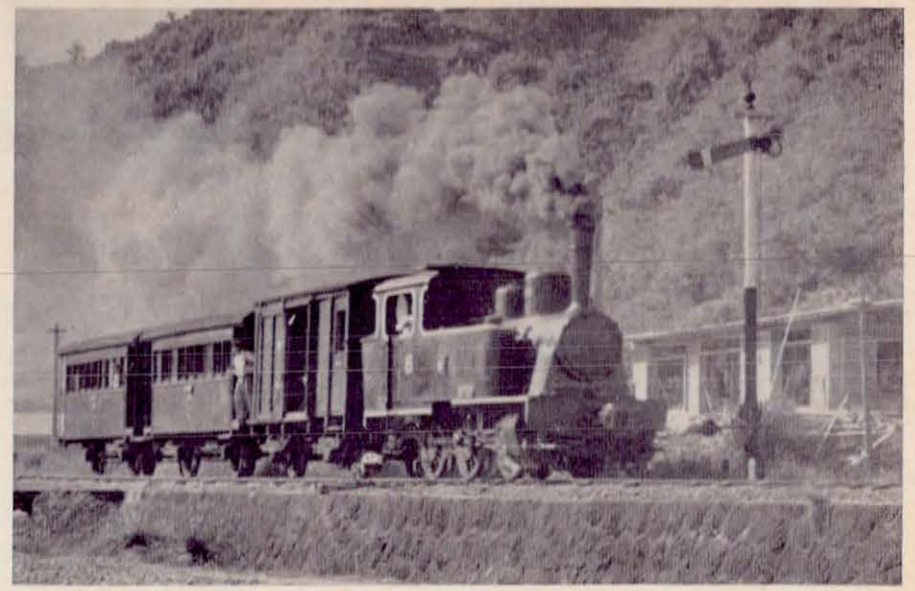
Book Review

A Japanese flavor in railroading



MIYAZAKI RAILROAD'S No. 6 is one of two steam locomotives used on the line.

Author Charles S. Small is more than a railfan; he is a people fan. And the people whose tradition and customs intrigue him are the people of the world. In his latest book, "Rails to the Rising Sun," *Small's subject is Japan.

Its railroads—particularly its private railroads and short lines—are the fabric into which he has woven his sampler of the Japanese.

One chapter describes a line with the unlikely name Miyazaki Kutsu; unlikely that is, until he explains that Miyazaki is the name of a place and Kutsu means transportation. In describing this 4½-mile enterprise, predominantly serving tourists, Small manages to weave in the proclivities of the Japanese for touring, especially in groups. They make traveling an art. Organized tours start in the earliest school years and continue right through retirement. The honeymoon is the only trip a Japanese couple is likely to make unescorted, the reader learns. At the same time, he garners vital statistics about the MKRR.

Other chapters in this fascinating and superbly illustrated book—with many of the photos by the author—deal with the big Japanese National, the electric railways of Nippon and its industrial lines as well as other short lines. Part of one chapter has some interesting information about the Sino-Japanese War at the turn of the century, material which relates to the military service of veteran steam locomotives which are still operating in Japan.

If the unusual in railroading appeals, so will "Rails to the Rising Sun." ■

*Rails to the Rising Sun. By Charles S. Small. 136 pp. $7.95. Golden West Books, P.O. Box 8136, San Marino, Cal. 91108.

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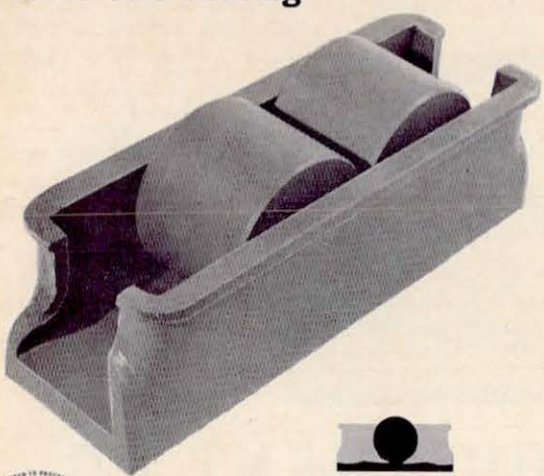

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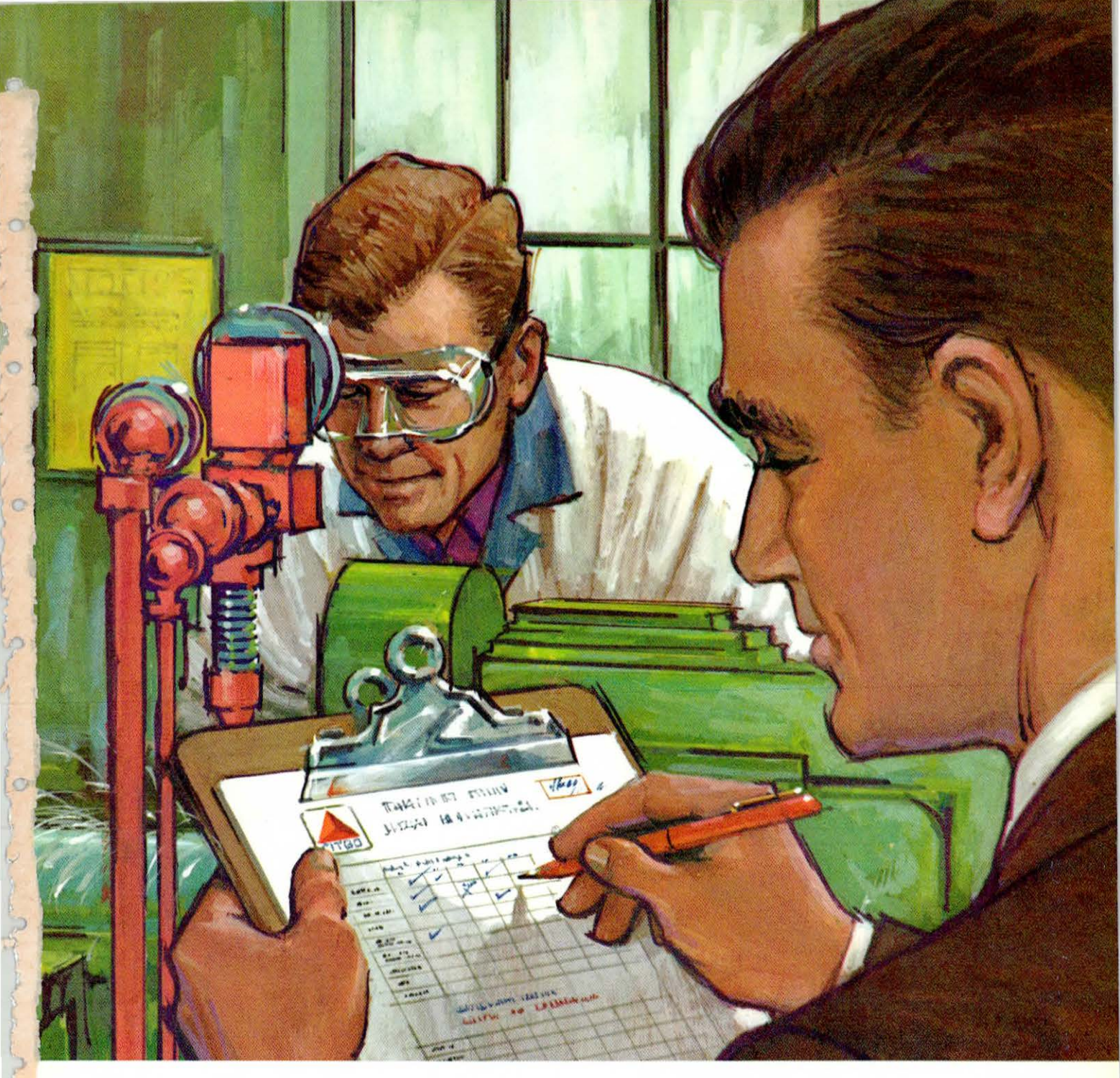

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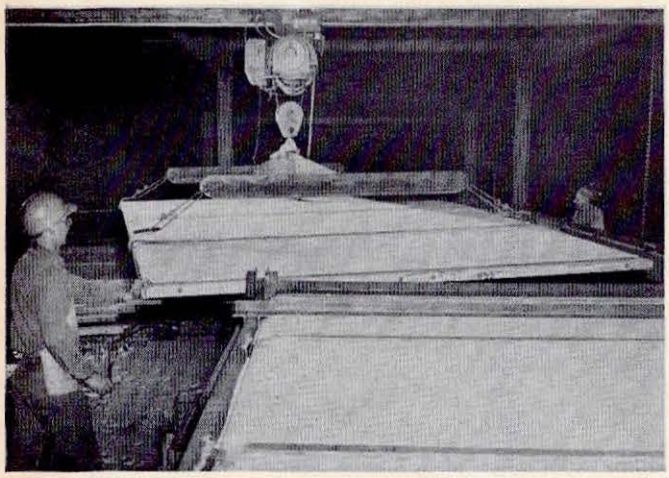

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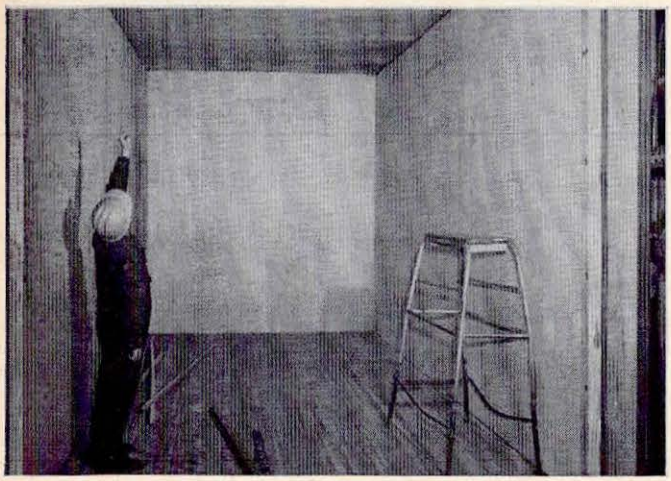

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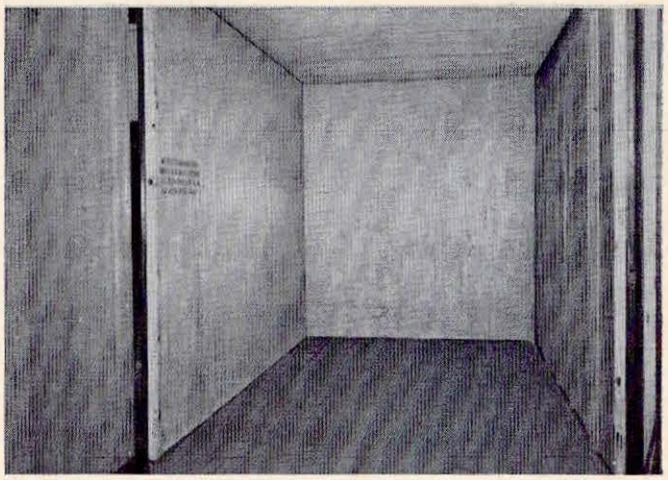

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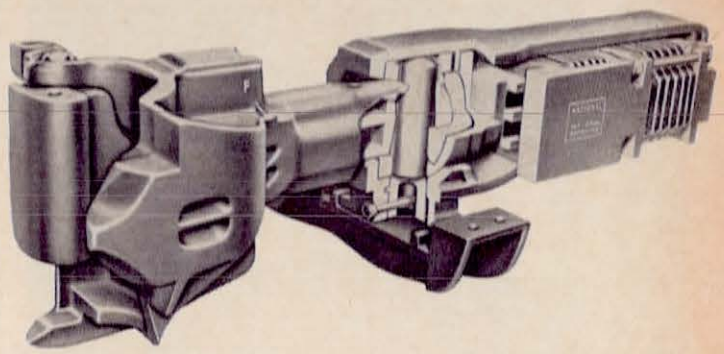

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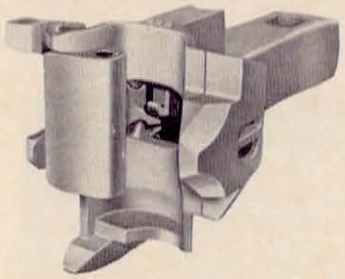
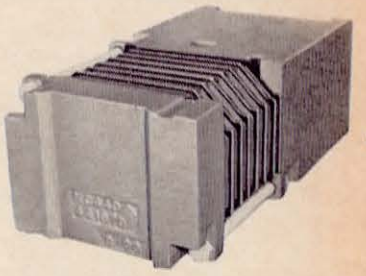


National Type F Interlocking Coupler is used at opposite end of car. Type F and Rotary F are cast in high strength alloy steel for higher loads and accelerations of unit train operation. Both couplers are equipped with improved knuckles of special alloy steel having 40% greater yield strength than standard F51-HT-S knuckles.



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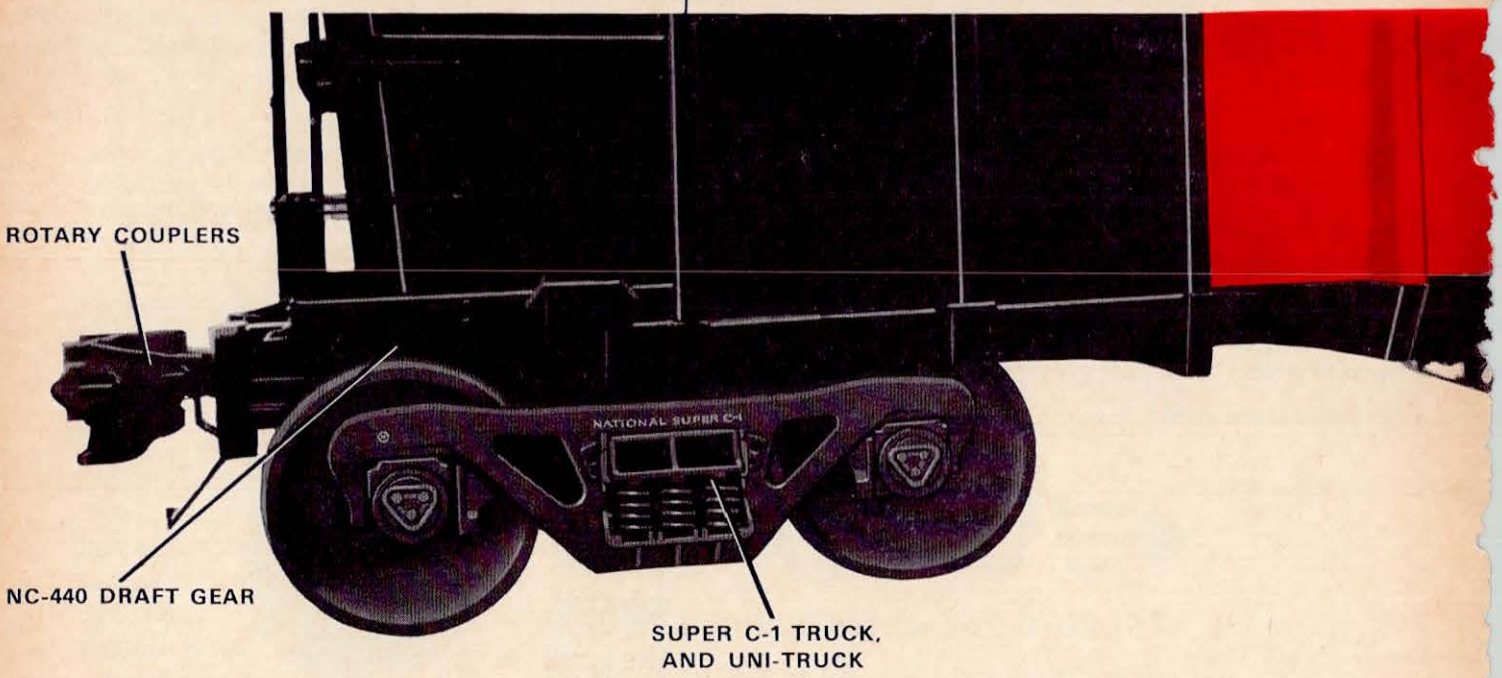

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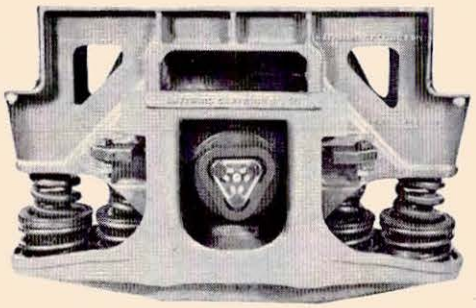

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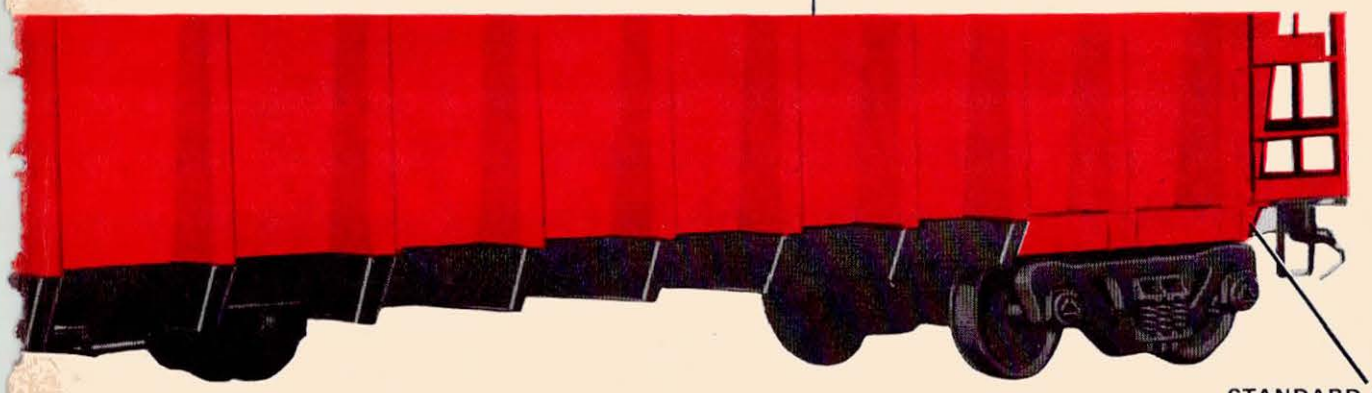

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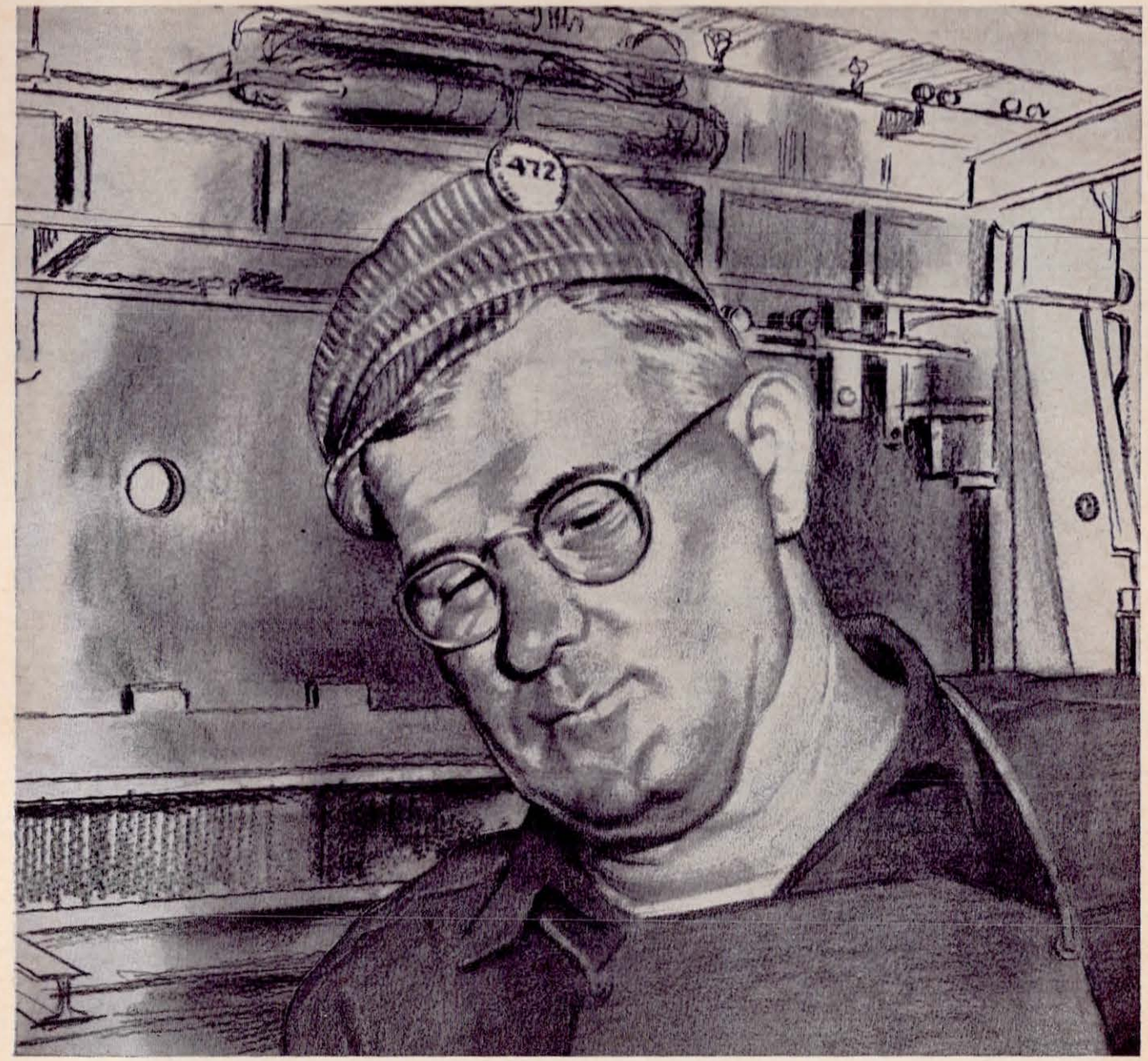

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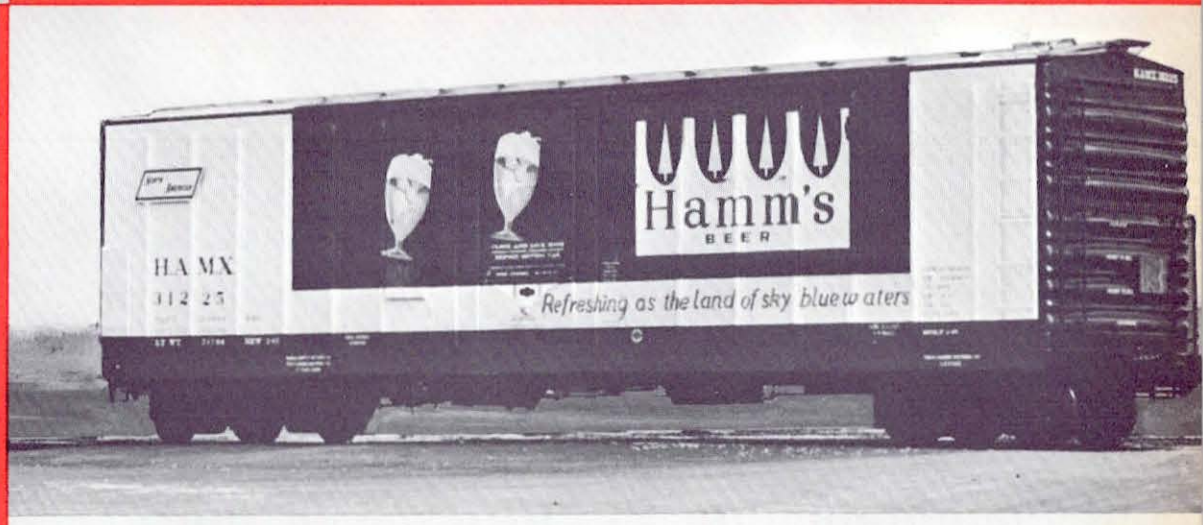

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Landreth continues to pioneer new equipment and systems for the transportation industry. Landreth's experienced engineers have dedicated over 60 years of service to the railroads as well as to the research and development of quality, labor-saving, and profit-making systems and products.

Our modern plants operating under controlled laboratory conditions, supervised by trained engineering specialists to insure the best possible insulation to suit your custom needs.

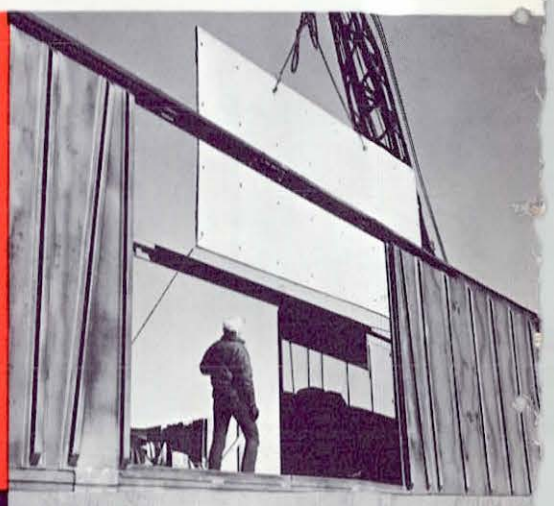
Ten foam machines, equipped to provide uniform volume and temperature control of the feed streams insure fast and efficient production.

Now you can free capital that would normally be invested in special facilities, research laboratories, engineering, and labor.

How to reduce costs and increase efficiency

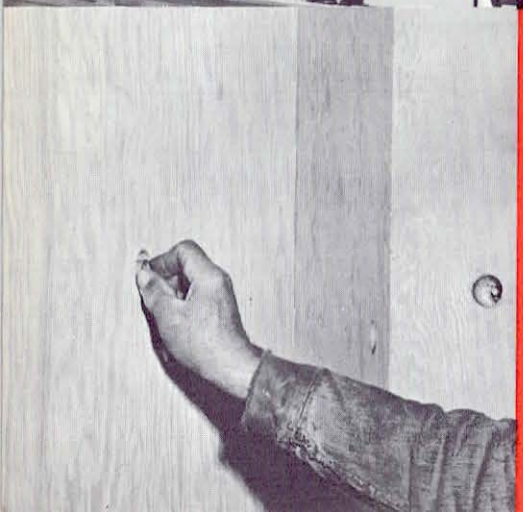
1 Workmen lowering end panel into place. Panels are moved into production line on freight cars and lifted into cars on cranes.

2 Workmen lowering side panel into place.



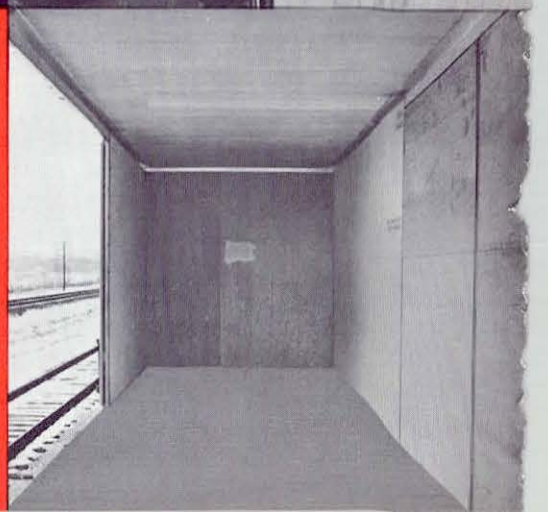
3 Workmen fitting side panels into place. Only 14 panels per car—panels are pre-trimmed, complete and ready to bolt into place for the sides, ends, ceiling, floor, and door.

4 Workmen fastening "Nelson" stud to outside post. Insulation thickness is reduced by ½ over conventional insulation materials.



5 Workmen inserting attaching device which when tightened, secures panel to side of car. This effective fastening system provides fastening without the normally associated heat loss.

6 Finished car. All joints foamed to insure a complete air-tight car.



Landreth panels increase insulation efficiency and cut costs

The new Landreth Pre-Molded Urethane Foam Panel enables railroads and car builders to build a better car faster and with less man hours in their shops.

The new Landreth system enables the builder to provide a Urethane Foam car without the necessity of installing special machinery and costly facilities.

Landreth Pre-molded URETHANE foam Panels engineered and proven best by test

The Inside Story of Budd Report #2238

The Landreth Insulated Car equipped with Landreth's Pre-Molded Urethane Foam Panels has just undergone exhaustive tests. After six months of road tests, the car was tested in The Budd Company testing laboratories in Philadelphia.

Here are the startling results from the Budd Laboratory's report.

The car constructed with the Landreth Pre-Molded Urethane Foam Panels was to be tested against two other cars constructed with Urethane Foam block. All the cars had been previously road tested for six months or longer.

The Landreth equipped car had absolutely no air leakage, no hot spots, and *no voids in the foam.* In addition, at 100 degrees differential, the car built with the Urethane Foam block had a BTU average of 143 BTU's per hour. The car equipped with the Landreth Pre-Molded Urethane Foam Panels also at 100 degrees differential and tested under the exact conditions, showed an average of just 93 BTU's per hour.

The Landreth Insulated Car was at least 50% more efficient than the car constructed with foam block. Conclusive proof that the Landreth Pre-Molded Urethane Foam Panel—is "Best by Test"!

Reduce labor costs with easy-to-install Landreth pre-molded Urethane foam panels*

Landreth Pre-Molded Urethane Foam Panels provide a lower K factor, as low as 0.11 (BTU's/sq. ft./hr./°F/in.) at 70 degrees as compared to 0.23 for conventional insulation. Over 90% of Urethane cells are closed. Thus, locking out moisture.

Check these features that make LANDRETH pre-molded Urethane foam panels*— best by test!

- ★ No Air Infiltration
- ★ No Localized Hot Spots
- ★ Non-Burning Foam
- ★ Easy Repairs
- ★ Seamless Vapor Barrier
- ★ Greater Thermal Efficiency
- ★ Thinner Walls
- ★ Completely Pre-Fabricated
- ★ Guarantee No Voids
- ★ All Joints Foamed
- ★ No Moisture Absorbtion
- ★ Odor Free and Non-Toxic
- ★ Fungus and Rot Proof
- ★ Added Structural Rigidity
- ★ Improves With Age—Does Not Deteriorate
- ★ Fire Proof
- ★ Does Not Split or Settle From Road Vibration or Temperature Change

Highest quality controlled Urethane material on the market today

*Patents Pending

Landreth INDUSTRIES INC

LANDRETH INDUSTRIES, INC.
2100 Greenwood Avenue • Evanston, Illinois • Phone: 328-2062

MARKET OUTLOOK

Carloadings

Loading of revenue freight in the week ended Feb. 12 totaled 534,350 cars, the Association of American Railroads announced on Feb. 17. This was an increase of 46,733 cars, or 9.6%, compared with the previous week; an increase of 21,768 cars, or 4.2%, compared with the corresponding week last year; and an increase of 18,218 cars, or 3.5%, compared with the equivalent 1964 week. Ton-miles generated by carloadings in the week ended Feb. 12 are estimated at 13.5 billion, an increase of 10.8% above the corresponding week of 1965, and 9.2% above the 1964 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, Feb. 12

District	1966	1965	1964
Eastern, including Allegheny and Pocahontas ..	215,684	213,899	204,743
Southern	113,439	107,706	105,824
Total Eastern and Southern Districts	329,123	321,605	310,567
Northwestern .	60,448	56,789	58,641
Central Western	105,876	100,673	108,219
Southwestern .	38,903	33,515	38,705
Total Western Districts	205,227	190,977	205,565
Total All Roads	534,350	512,582	516,132
Commodities:			
Grain and Grain products	56,407	43,324	54,439
Livestock	1,438	1,585	2,015
Coal	106,351	101,729	99,081
Coke	9,061	9,006	7,040
Forest Products	38,646	35,905	39,167
Ore	16,908	16,149	15,379
Merchandise l.c.l.	6,872	9,968	13,880
Miscellaneous .	298,667	294,916	285,131
Feb. 12	534,350	512,582	516,132
Feb. 5	487,617	501,186	516,438
Jan. 29	513,503	527,826	532,686
Jan. 22	536,467	522,746	531,617
Jan. 15	544,556	532,367	499,342
Cumulative total, 6 weeks	3,124,775	3,127,765	3,124,985
Estimated revenue ton-miles (billions) 6 weeks	78.7	74.3	74.5

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended Feb. 5 totaled 20,098 cars, carrying 32,963 trailers, compared with 18,161 cars, carrying 29,502 trailers, in the corresponding 1965 week. Loadings for 1965 up to Feb. 5 totaled 97,031 cars, carrying 158,608 trailers, compared with 87,558 cars carrying 142,752 trailers, in the corresponding period of 1965.

IN CANADA—Carloadings for the seven-day period ended Jan. 31 totaled 91,090 cars, compared with 73,809 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
Jan. 31, 1966	91,090	33,955
Jan. 31, 1965	89,977	33,358
Cumulative Totals		
Jan. 31, 1966	294,402	103,088
Jan. 31, 1965	280,730	98,552

FREIGHT-TRAIN CARS

► *Chattahoochee Industrial.*—Has completed arrangements to acquire 200 50-ft box cars equipped with damage-preventive devices. The cars, costing approximately $3 million, will be built at Pullman-Standard's Bessemer, Ala., plant. Delivery is scheduled to begin in January 1967.

► *Southern*—Ordered 500 all-steel, 100-ton 4,000 cu-ft-capacity covered hopper cars from Magor at a cost of $8,078,000. For 1966 delivery, the Southern System now has on order 737 freight cars and 841 piggyback units, at a total cost of $20 million.

PASSENGER CARS

► *Department of Commerce.*—Pullman-Standard has been awarded a contract to build the cars for two three-car, high-speed trains to be tested on the New Haven. United Aircraft Corp., of East Hartford, Conn., is the prime contractor for the $2.1 million Department of Commerce project. United Aircraft will design and build the gas turbine power plants for the trains. The trains will feature a self-banking system that will permit the cars to negotiate curves at very high speed, and have reclining seats and vista domes. Delivery is expected in about 10 months.

NEW FACILITIES

► *Baltimore & Ohio.*—Ordered Type D1 traffic control equipment from General Railway Signal Co. to expand the East Gary, Ind.-Hicksville, Ohio, installation eastward to Attica Jct., Ohio. An existing pushbutton control center at Akron, Ohio, will be expanded to accommodate the five interlockings to be added.

► *Chicago Transit Authority.*—Proposes to extend the Englewood rapid-transit line from 63rd Street and Loomis to a new terminal at 63rd and Ashland at a cost of $5,851,300. Application has been made to the Department of Housing and Urban Development for two-thirds of the funds required.

► *General American.*—Is expanding its terminal facilities in Milwaukee to provide storage for edible and inedible animal fats and oils. New storage tanks of 330- and 650-metric ton capacity are being constructed on property adjacent to the existing terminal. The 330-metric ton capacity tanks, for example, can hold the contents of 12 standard railroad tank cars. With the new tank facilities, GATX will be able to accept oil for storage at any time for transshipment on Great Lakes ships. The terminal is served directly by the Chicago & North Western and the Milwaukee Road.

FOREIGN

► *Syrian Railroad Institution.*—Is undertaking an extensive expansion and modernization of the nation's railroad system. The program, to cost more than $150 million over the next five years, will require Syria to make extensive purchases abroad, ranging from track equipment to build new lines, to rolling stock to operate on the system.

YOU OUGHT TO KNOW

Railroad spokesman dies: David I. Mackie, former chairman of the Eastern Railroad Presidents Conference, and at one time vice president and general counsel of the Lackawanna, died of a heart attack Feb. 11 in Newark, N.J. He was 62 years old. Mr. Mackie was head of the ERPC from 1953 to 1965, and traveled extensively on speaking engagements representing the 37-railroad organization. He was a strong campaigner for more equitable rates for the railroads, and favored the creation of one federal agency to regulate all forms of transport. He was a New York attorney from 1929 to 1945, when he became general solicitor of the Delaware, Lackawanna & Western. He was named general counsel in 1946 and served as vice president and general counsel from 1950 to 1953.

Protest on Penn Central: Monon is going after the giants again. The road last week filed a petition with the ICC asking that the Pennsylvania-New York Central merger application be reopened for further hearings. Reason: "Various events occurring since the close of hearings" (which produced a favorable examiners' report). Monon also requested inclusion in the merger if the ICC does approve it and if "adequate protection as requested" cannot be granted. This is the third time Monon has gone jousting with the giants. Previously, the Hoosier road battled Chesapeake & Ohio for control of Chicago South Shore & South Bend (a struggle ended by compromise) and dug in to fight Missouri Pacific control of Chicago & Eastern Illinois.

Oil income for transit? The State of California has an uncounted fortune in tideland oil reserves along its coast, and Los Angeles Mayor Samuel Yorty thinks some of the revenues from these fields should be used to pay for construction of rapid transit facilities. The mayor is out to find a way to have the state legislature assign the funds ($850 million for a Southern California transit system) without a constitutional amendment.

Boston IRT session: Boston College and the Institute for Rapid Transit will team up to sponsor the Institute's annual meeting June 14-16 on the college's campus. The meeting will establish some "firsts": first to be held outside of Washington, first to be held in collaboration with a university, and the first three-day session.

Trailer manufacturer expanding: Strick Corp., which designs and manufactures transportation equipment, including standard highway trailer bodies, is expanding its nationwide service system. The company, with headquarters in Fairless Hills, Pa., is building a new plant in Chicago, and is enlarging and modernizing factory branches in Los Angeles, Philadelphia, and Charlotte, N.C.

75th anniversary for BAR: A 48-page history of the Bangor & Aroostook and the area it serves just has been published by the railroad in commemoration of the road's 75th anniversary. The publication, liberally sprinkled with four-color illustrations and historical photos, includes profiles of various Maine industries. The BAR is beginning a five-month celebration of its anniversary, to be climaxed in June with an exhibition train, historical displays and a showcase of Aroostook products.

For better communications: Canadian National is changing its employee-communications program to provide more individualized coverage. New publications, in tabloid newspaper format, will be issued monthly for each area of the system; at the same time, Keeping Track, the system magazine now published 10 times a year, will become a quarterly. The new tabloids will emphasize local-area coverage and will also include a section of important system news.

Truck tonnage: Intercity truck tonnage in the week ended Feb. 5 was 0.5% above that of the previous week, and 3.0% above the volume in the corresponding week of 1965, according to American Trucking Associations.

Current statistics

Net Income	
9 mos., 1965	$540,000,000
9 mos., 1964	500,000,000
Carloadings, revenue freight	
6 wks., 1966	3,124,775
6 wks., 1965	3,127,765
Freight cars on order	
Jan. 1, 1966	45,016
Jan. 1, 1965	32,698
Freight cars delivered	
12 mos., 1965	77,812
12 mos., 1964	69,078
Serviceable cars	
Jan. 1, 1966	1,402,459
Jan. 1, 1965	1,398,503

Circle 19 on reader service card ▶

COMPARE

HENRY MILLER

rite-Angle

SPRINGS

with conventional

UNGROUND SPRINGS

THE ONLY FREIGHT CAR SPRINGS WITH UNGROUND ENDS THAT MEET A.A.R. SPECIFICATIONS FOR GROUND END TOLERANCES— ELECTRONICALLY LOAD TESTED

. . . at No Extra Cost!

Henry Miller "rite-Angle" springs are on-the-level! Flat top and bottom—they permit load to be applied axially instead of off-center for better service, longer life, reduced maintenance and replacement costs.

Basic qualities? Henry Miller uses the *same* quality steels, heat treatment and shot peening as other quality manufacturers. Every spring is electronically load tested—outer coils to standard 5500 lbs. and inner coils to standard 2200 lbs. All are automatically calibrated to A.A.R. specifications. Springs that don't meet A.A.R. specs are automatically rejected.

Specify Henry Miller "rite-Angle" springs — produced *without* ground ends, that match any springs *with* ground ends—at no extra cost!

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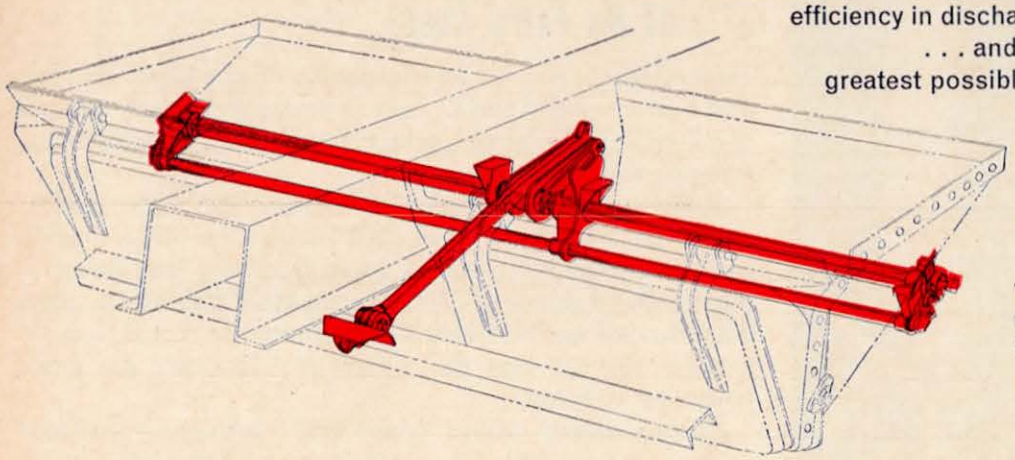

Type D Door Latches also provide for tight doors and maintenance-free operation . . .

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. . . before adding any more cars to your fleet, take the time now to investigate Type D, the finest open hopper door latches available in the industry today—you'll be glad you did!

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Circle 20 on reader service card

GEARED TO PROGRESS
RPI MEMBER

Freight and Passenger Car Charts

These charts are very helpful to AAR billing clerks, mechanical engineers, purchasing and stores personnel, car inspectors, write-up men, car foremen, and anyone else who needs a knowledge of car parts and their relation to each other.

The charts include a cutaway diagram of the car and a listing of important parts with arrows showing where the part is located. These charts are a part of standard training programs used on a number of major railroads.

$2 each

$10 for any six

If you are not satisfied

YOUR MONEY WILL BE REFUNDED

if you return the charts to us within 30 days

THE RAILWAY EDUCATIONAL BUREAU
1809 CAPITOL AVENUE
OMAHA 2, NEBRASKA

Please send the charts I have checked below. If I am not satisfied I will return the charts within 30 days for a full refund. I enclose a check or money order for $2.00 for each chart or $10.00 for any six charts.

- ☐ Streamlined light weight passenger car (16x25 inches)
- ☐ Covered hopper car (20x30 inches)
- ☐ Box car, AAR standard 40 ft. (23x25 inches)
- ☐ Air conditioned chair car, 1930 design (18x35 inches)
- ☐ Tank Car (22x35 inches)
- ☐ Refrigerator Car, wood sheathed, steel underframe, 1920 design (14x20 inches)

RA-2/21

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THE ACTION PAGE

Who asked 'What do rail presidents do?'

A lot of people can take bows when it's time to pass the posies for what is surely an outstanding rail accomplishment in the post World War II era —the rise of tonnage handled in bulk (see page 19).

Builders of railroad equipment can point with pride to their considerable contribution. Suppliers have done handsomely with research and development of accessorial hardware and should be in line for some of the credit. There are shippers who, recalling that they had to figuratively bludgeon some railroads into what has turned out to be a handsome flow of tonnage, have cause to think they're the parents of bulk handling. There are railroad officers in operating and mechanical departments who can, with substantial merit, lay claim to the same title. There is much merit in all these claims.

But, credit for the boom in bulk handling probably belongs to a group not likely to claim it—the railroad presidents. This small group of men had the responsibility and the challenge put to them—hard.

The responsibility was enormous. Staggering sums of money had to be spent for equipment and accessories. Equipment tailored to specific commodities often costs twice as much as ordinary equipment. Major expenditures had to be made for the accessorial hardware that shippers require to achieve loading and unloading economies.

Large and obvious risks

Responsibility for this capital commitment was great because the presidents had to make decisions in the face of some large and obvious risks. The improved and larger cars needed to implement bulk handling systems were a key part of a related decision, the broad *downward* revision of freight rates *during a period of shrinking business and revenues.*

Industry chief executives were also quite aware of the technological consequences of their decisions. No one could predict, with the comfortable certainty of experience, what the economic performance of the new cars would be over their useful lives. The presidents knew bulk handling equipment would have an unfavorable effect on a traditionally important industry index—empty car miles. They were also quite aware of the fact that their decisions led straight to some equally staggering expenditures for removing clearance restrictions, line straightening, tunnel enlarging and daylighting, and improving weight restrictions on tracks, bridges and other structures.

It wasn't easy. Railroads, for more than a hundred years, had had experience with bulk handling of commodities. But, there were massive economic, industrial and commercial relationships that depended upon historical rate and market ratios. And there were also victorious, bullish competitors tearing away chunks of railroad business.

It is more than a decade since the presidents made the risky decisions to ask their boards for the money and gambled on their ability to reverse trends in tonnage, revenues and share of market. Signs are everywhere that they made a shrewd and daring move.

New equipment-control systems

Average ton-mile revenue has declined more than 14% in a little less than a decade. But the slide in the industry's share of intercity freight has halted and shows signs of climbing. Empty car mileage has increased but the carriers are pushing equipment control systems that give every indication of soon achieving such control of the carfleet as the industry has never known before.

Questions of technology, ranging from the ultimate economic viability of some of the equipment in bulk handling service to serious questions about how the new equipment affects fixed plant, are still to be resolved, but they appear to be within the limits of present industry capacity to innovate, especially in view of the carriers' improving fortunes.

But, most importantly, industry traffic and marketing officers are taking advantage of this basic revolution in bulk handling of commodities to engineer competitive success after competitive success—often in areas where the competition imagined itself safe.

Railroad presidents get their share of brickbats. It's only fair for them to get applause for this one. In the process of revitalizing the industry they have also merited the thanks of the country, too, for introducing efficiencies in the basic distribution system that seriously affect everybody, every day of their lives.

The bulk handling story, come to think of it, could very well be the answer to a person who asked, "What does a railroad president do?"

38-Year-Old Cable

FOR SALE

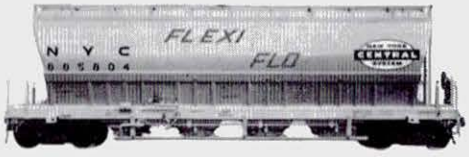
Back in 1927, we installed 3,000 feet of Kerite cable in the duct lines of a prominent utility. It gave uninterrupted service at 6,900 volts for 38 years. When it was replaced, its condition (an average 60-cycle breakdown of 100,000 volts to ground) indicated that it had acquired its experience without any loss of its initial qualities.

Because of increased demands on the lines, this cable was replaced by a Kerite cable of a larger conductor size.

In view of its perfect condition, and taking inflation into account, we figure that the old cable is now worth at least twice its original price. We will accept bids from all interested parties for a limited time only. For sentimental reasons, we would just as soon keep the cable ourselves as a souvenir of faithful service. The Kerite Company, 30 Church Street, New York, N. Y. 10007.

Circle 21 on reader service card >

The car behind the Golden Freight Car



An important factor in NYCRR's winning of the prized Golden Car Award is the success of their Flexi-Flo® rail-highway dry bulk distribution service. And the key to Flexi-Flo from the start has been ACF Pressure Differential™ Cars.

With these revolutionary cars, dry bulk commodities can be shipped direct to any terminal or siding. A blower-equipped trailer-truck pulls up. The driver connects two hoses. Then even compacted ladings are pneumatically conveyed into the waiting trailer.

You can open new markets, beat shipping holdups. Yet you don't need to tie up your capital in warehouse or storage facilities. ACF Pressure Differential Cars let you serve truckload customers with carload economy.

Why not look into them? Naturally, we can't guarantee you awards. But you could win some new prize markets. Call or write American Car & Foundry Division, ACF Industries, Incorporated, St. Charles, Missouri 63301. Or our sales offices in Chicago, Philadelphia, St. Louis, San Francisco, Washington, D.C.

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